



SCHLOSS LEOPOLDSKRON, SALZBURG.

## BAROQUE ARCHITECTURE.

Essay submitted under the motto "Chi non sa far stupir vada alla striglia," and awarded a Certificate of Honourable Mention in the Competition for the Royal Institute Essay Medal 1913.

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### I.

RESEARCH in an obscure or discredited byway of art may yield to a student the same unique satisfaction which an explorer feels on gazing over some desolate plateau with the knowledge that no human eyes have ever seen what he sees. And although in likening Baroque architecture to a *terra incognita* there is a semblance of exaggeration, yet to English readers the first few beams of criticism that have been directed towards its dark mysteries have done little to dispel the gloom.

Fashion in the mistress art is not perhaps so fickle a jade as in other aspects of life, yet her changeable moods are felt even in the enduring medium of stone and steel. Modern improvements in printing and illustration have enabled the architect of to-day to draw his inspiration from every bygone age, and have caused the recurring sequence of historical revivals now so familiar to us all. How is it, then, that there has never been a Baroque revival, and that so little interest has hitherto been evinced in the history of the style?

Chiefly because the period has for centuries been under the ban, attacked by the brilliant pen of Ruskin and the clumsy scrawls of less reputable critics, but partly because the neglect which has enveloped it precluded any real understanding of its proper scope and latent possibilities.

"What's in a name?" once asked a sage, and never has a wise saying been more fruitful of contradiction, for a name may as easily mislead the unwary in architecture as in other realms, and a nickname is hard indeed to outlive. The Quakers and the Tories have had no more to suffer than those virile and original masters of the seventeenth century, whose genius created the misunderstood style known as Baroque.

There are many glaring defects in architectural terminology, and often the origin of well-

worn definitions is difficult to trace. In the present instance even the painful erudition of the Teuton brain has failed to elucidate a satisfactory explanation. A plausible, if only hypothetical, theory advanced by the present writer may satisfy those who have the imaginative faculty rather than the strictly sceptical mind.

In the days when that delightful rogue and liar Benvenuto Cellini was varying his amorous escapades with his marvellous achievements in art there came from the Mediterranean fisheries to his work-bench pearls of all shapes and sizes—some misshapen and useless. These abortive pearls were known to the Portuguese fisher-folk by the name of *barocca*, but the term may have reached Portugal from Phoenicia, or from some Moorish source. At all events, it provided a convenient description for its purpose, and as workmen in the sixteenth century were guilty of slang, just as their successors are to-day, there is no harm in assuming that the nickname soon outgrew its first object and gradually came to be applied to any detail of artistic design which varied from conventional lines.

The hard line which differentiates the architect of modern times from the goldsmith and the painter did not exist when one man possessed the qualifications of half-a-dozen, and Cellini the goldsmith-sculptor, or Michelangelo the sculptor-painter-architect-poet are but the counterpart of our English Jacks-of-all-trades—Inigo Jones, Wren, and Vanbrugh. So may the goldsmith's nickname have penetrated to the architect's *atelier* in Rome.

A more academic theory relegates the word to a purely literary origin and connects it with *barocco*, implying a figure of syllogism which draws conclusions from the absurd. In this regard it must not be forgotten that there was a close parallel between the Baroque movements in architecture and literature during the seventeenth century, the period which produced the Euphuists and the *Précieux* outside Italy.

Beginning then with an unfortunate title to mar its reputation, this style of design has gradually ceased to be credited with many of its greatest exploits, for among the uneducated in such matters the sole test has come to be limited to the extravagance of its ornamental features. This is generalising to excess, and a critic cannot be too careful of his definitions, especially with a hostile public.

The Baroque period in Italy may be broadly defined as the seventeenth century, although many of its earlier examples date back to 1580, or thereabouts, while others, notably the Fountain of Trevi (1735), are much later. Inspired by Michelangelo and his pupils, and fostered by the Counter-Reformation, it found its most striking expression in Rome, spreading thence all over Italy, with a notable culmination in Turin, then the capital of those Piedmontese kings who were destined to create United Italy.

In other countries the movement found an already free style in architectural design, so that its predominant plea for a revolt against pedantry had less scope. Its chief examples out of Italy are thus due to the enterprise of the religious orders, the Jesuits and the Theatines, and are permeated with the spirit of Papal Rome. Throughout Europe it remained essentially Italian wherever its influence extended.

The line separating Baroque art from Rococo is faintly marked and seldom understood. The ink is barely dry on the plates of a new German publication which includes both indiscriminately under the title of *Deutscher Barock*. That there is a distinction is now becoming recognised, Baroque being in its essence Italian and masculine, Rococo French and effeminate. The word *Rocaille* (= rockwork) well describes the character of the fantastic decoration of the later style, always light and never architectural. With this phase a student of Baroque architecture need not be seriously concerned. His hands are sufficiently occupied in disentangling himself from the maze of uncertainty and misunderstanding which at present seems to prevent any reasonably constructive criticism of the period.

## II.

No one conversant with the condition of Italy during the later years of the sixteenth century can fail to appreciate the peculiarly favourable circumstances prevailing for the great change which took place in architectural design.

With the exception of Palladio and Michelangelo few architects remained who had not lost the true spirit of the Renaissance altogether. That wonderful reformation of thought and of artistic expression based all its inspiration on the definite cult of beauty for beauty's own sake, whether of form or of thought. It was the antithesis of the mystical spirit of mediævalism, in this respect, that devotion to an unseen ideal counted so little and worship of the visible counted so much. There was a warm and pulsating humanity in its literature and its painting which monastic genius always lacked, in spite of other great mediæval qualities, and appreciation of classic culture was not the mere craze for copyism which has frequently appeared as a revival in modern art history. Pedantry did not make its appearance in Italy until men began to systematise classic architecture to a matter of tables and dimensions. And as the subtle change began to make itself felt the genius of Palladio and Michelangelo rose superior to its insidious influence, so much so that in the opinion of many the Renaissance in architecture rose to its culmination in their buildings, where all that their predecessors had learned was assimilated in their great brains and surpassed by their originality and vigour.

These two men are of notable importance here, because, at a time when the tendency was to adopt conventional forms unquestioningly, they dared to invent new methods and details for themselves. Palladio had received a training in architecture, and so naturally developed on accepted lines, but Michelangelo came to architecture an old man with a whole career of painting and sculpture behind him. His work is therefore bolder in conception than Palladio's, just because he had fewer conventional prejudices to forget, and though he neither equalled nor touched the level of "the builder of Vicenza" he probably was the chief originator of the Baroque style.

It was not so much that Michelangelo introduced Baroque elements into his designs, though there are isolated cases of this, as that he set the fashion of independent thought in architecture. From his death onwards there is a long succession of pupils and followers, each striving after individual expression according to his own lights, and producing work correspondingly great or grotesque. This conscious striving is the keynote to the whole Baroque movement.

Great as was Michelangelo's influence in his day, there would never have been a revolution such as actually occurred had not other conditions favoured, or, in fact, necessitated it. Chief among these must be mentioned the Counter-Reformation, of which Baroque architecture came to be the visible symbol, outside as well as within the confines of Italy.

The Renaissance spirit was distinctly inimical to the welfare of the Church. Speculation and philosophy in all its forms suddenly displaced the accepted theories of life and religion, the writings of Greek sages taking precedence of the Apostolic Fathers. Miracles and reliques lost their charm; penances and absolutions diminished in value. Against an ever-increasing tide, which threatened to overwhelm the Church spiritual and temporal, the pontiffs at the Vatican began to organise a new reforming scheme within their ranks. A succession of brilliant and energetic Popes at last succeeded in stemming the tide, and for this victory they were chiefly indebted to the great religious orders formed in the sixteenth century.

The Jesuits were the most outstanding of these orders, and they accomplished their difficult end by an extraordinary and devoted efficiency. From the force of the opposition arrayed against them they realised the claims of intellect, and in a very few years they produced a vast body of trained theologians, cultured and courteous scholars well versed in the use of the

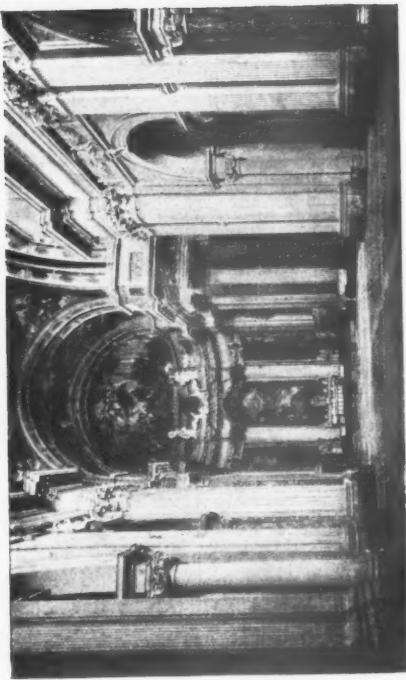


Fig. 3.—S. IGNAZIO, ROME

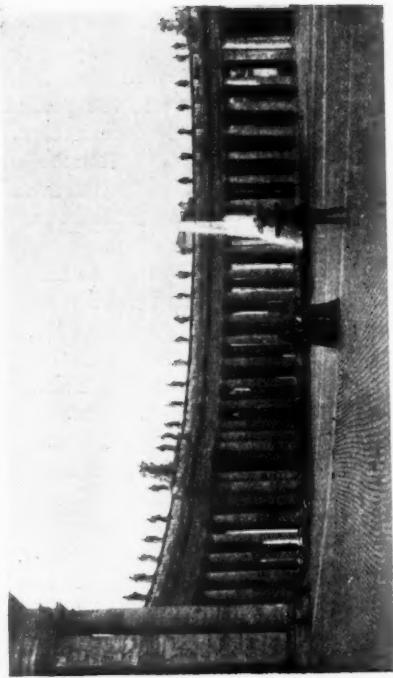


Fig. 4.—ST. PETER'S, ROME, COLONNADE.

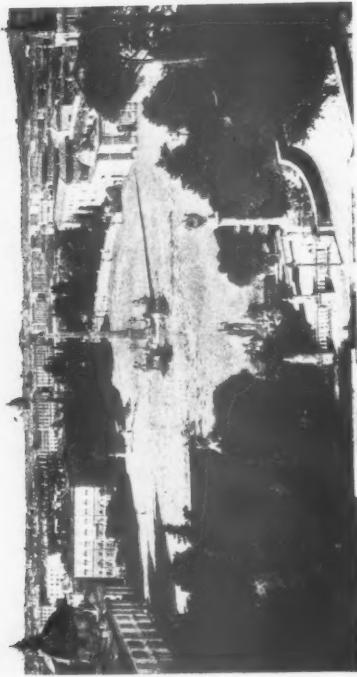


Fig. 1.—PIAZZA DEL POPOLO, ROME.

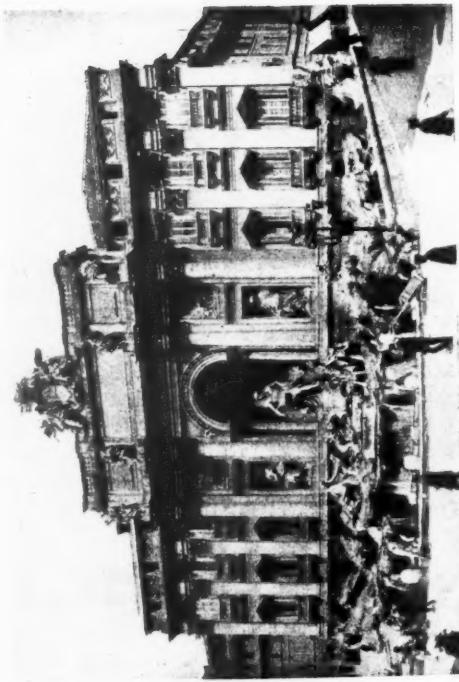


Fig. 2.—FONTANA DI TREVI, ROME.

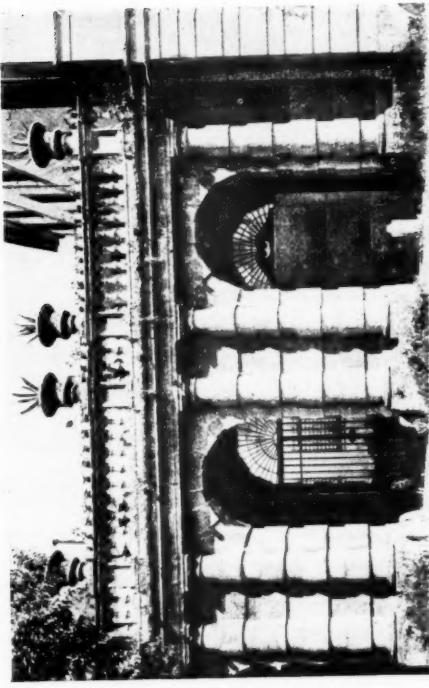


Fig. 5.—VILLA BORGHÈSE, FRASCATI: GATEWAY.

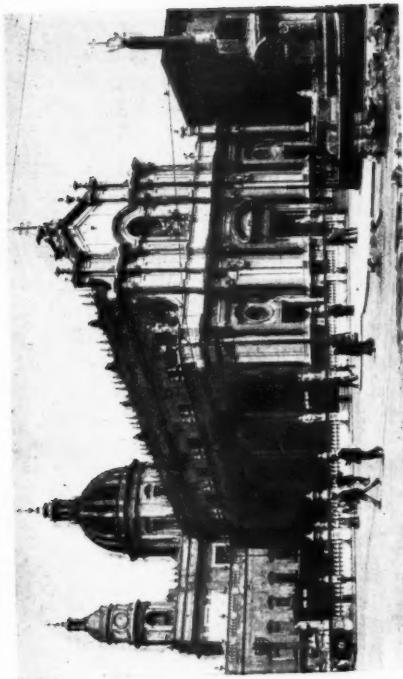


Fig. 7.—THE CATHEDRAL, CATANIA.

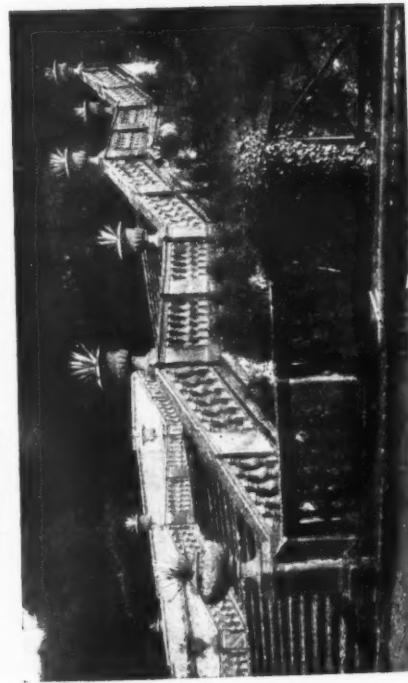


Fig. 6.—VILLA TOLONIA, FRASCATI: TERRACE STEPS.



Fig. 8.—FONTANA DEL NETTUNO, CATANIA.

weapons of their enemies. A generation after its formation the Society of Jesus was sending out from a highly organised system of schools a great number of educated men who owed everything to its teaching, and was spreading its tenets throughout Europe and the other countries of the then known world.

The ultimate triumph of the Counter-Reformation was finally secured by a thorough and drastic extermination of heresy, and a long list of persecutions and holocausts marred an otherwise admirable undertaking.

The first and most obvious result of the Church's reforms was the striking change caused in the status and prosperity of Rome as a city. From the position of a decayed provincial town she rose in a hundred and fifty years to a position of commanding importance, and at the end of the sixteenth century a great demand had arisen for churches and palaces to house the large population of clerical officials, whose number increased annually. This was no time for grovelling humanity, in the opinions of the powerful clerics who swarmed round the altar of St. Peter, but rather an occasion for proclaiming to the world in terms of solid travertine that the Holy Church was militant and triumphant, and that her standards were to be exalted among the sons of men.

So Pope after Pope welcomed and intensified the new trend of architecture, labouring in their great churches and palaces and fountains to surpass anything dreamed of by their predecessors, and Rome—the *fons et origo* of the Baroque spirit—became the proudest city in Christendom.

In addition to the impetus of the Counter-Reformation, there were other influences at work to propagate this manner of building, notably the increasing attention paid to Spanish customs and etiquette. A rigid and pompous formality which well suited the proud prelates of the Eternal City had supplanted the easy and stimulating manners of the Renaissance Courts, where burghers and craftsmen mingled freely with aristocratic families in the lusty states of Central Italy. Thus heraldry—piled over an ostentatious entrance—a wide staircase planned for effect, and a feeling for the bombastic throughout became essential elements in the new architecture.

Lastly, there is to be found a parallel movement in kindred arts and in literature, just as there was in other countries at the time. As a recent writer has said :

"The reaction against the frigid classicalism and degenerate Petrarchism, in which the poetry of the sixteenth century ended, led to the seeking of novelty in form and expression, exemplified in Marini, whose poetical ideal was to astonish by exaggeration, to dazzle by profusion and excess. Thus came into being 'Secentismo,' the spirit of the seventeenth century in Italian literature, which has become synonymous with what is false and unreal."

The painters of the period, too, were true to its principles, for, while religious subjects still continued popular, a bold and sometimes heavy realism characterised their work. The school of the *Tenebrosi* is conspicuous by its mastery of shadow, and not less so by its knowledge of the possibilities of the human form.

Sculpture also assumed a very different aspect during the same epoch, more naturalistic and less suggestive of the antique. At times heavy and coarse, it had the same boldness and freedom as the architecture whose willing and tractable handmaiden it became.

Thus was born the Baroque style of architecture, with the hard efficiency and self-conscious ostentation of its sponsors, but, like them, powerful, masterful, and bold, setting out to astonish the world.

### III.

Rome is as truly the centre of Baroque influence as it is the capital of Catholicism, and has been so since the days of Sixtus V., when the wild herdsmen of the Campagna had but lately

ceased to pasture their flocks among its Imperial ruins. Piranesi's wonderful drawings help us to realise how completely the relics of its ancient greatness were still concealed even when an awakening spirit of interest in the antique had sprung up among its citizens. In the seventeenth century it must have been as much a Baroque city as Syracuse or Lecce is to-day, an occasional mediæval *campanile* rising at intervals among its later buildings.

Michelangelo's successors did not plunge into the new style with the recklessness that some critics have ascribed to them. There was the transition period which invariably precedes a change in architectural design, and many of its examples are far more admirable than those which follow. Giacomo Barozzi, commonly called Vignola (1507-73), and his pupil Giacomo della Porta (1541-1604) introduced many novel features into planning and detail. Their two most successful churches are the Gesù (1568, *et seq.*) and S. Luigi dei Francesi (1589), each with the prominent façade associated with the typical seventeenth-century church, but in the former case displaying a splendid breadth and dignity of treatment which was to become the pattern for all Jesuit churches in Europe. One can only regret that so fine a model produced so few worthy imitations. Della Porta's loggia on the garden front of the Farnese Palace may be compared with Michelangelo's work to show the difference in detail and the general continuity of style in their building, but in the former's charming Fontana dei Tartarughe (1585) can be seen all the best side of that fully developed Baroque fancy which was so soon to be adopted throughout Rome.

Nearly contemporary with these architects were Lippi and Vasanzio, who designed the Villa Borghese and Villa Medici respectively, and Martino Lunghi, whose Palazzo Borghese and Palazzo Altemps are his principal works. The early villas closely followed in the footsteps of Raphael, and are interesting as examples of the transition.

Pietro Paolo Olivieri (1551-99) in his great Church of St. Andrea della Valle, opposite the Gesù, moved a step forward in the direction of dome construction, while adopting Vignola's plan almost line for line, and Flaminio Ponzio developed the grand manner in his Palazzo Rospigliosi and Palazzo Sciarra di Carbognano. Undoubtedly the finest of the earlier Baroque domes is that of S. Carlo al Corso (1612), by Onorio Lunghi, a son of Martino, mentioned above. There is a bold, restrained strength here which even in more famous instances has never been surpassed.

The last of these architects of the transition were the two Fontanas, Domenico (1543-1607) and Giovanni (1546-1614), whose handiwork is so prominent in the great palaces of the Papacy—the Vatican, the Lateran, and the Quirinal—as well as in some of the larger villas at Frascati and in the well-known Church of SS. Trinità de' Monti. Their buildings vary but little from the principles laid down by the later Romans of the Renaissance, but in much of the detail a new tendency is apparent.

Among those who gave Baroque architecture its crowning and distinctive qualities there is no question as to pre-eminence, for one architect has attained celebrity thereby even among his most bitter detractors. Giovanni Lorenzo Bernini (1599-1680), like Michelangelo and Inigo Jones, combined an extraordinary versatility with great energy, and, like them, too, was blessed with a long life. He turned from architecture to landscape or scene painting, to sculpture, or to jewellery—he wrote plays and sonnets, drew caricatures, designed coaches and clothing, invented new fireworks or feminine fashions. But as architect and sculptor he became immortal. The colonnade in front of St. Peter's alone would have established his reputation, and his Scala Regia in the Vatican Palace adjoining is no less admirable. Numerous palaces must also be added to the list, and among churches S. Andrea del Quirinale, interesting in being derived from the Pantheon. Sculpture pure and simple is hardly within our province here, but Bernini was *par excellence* the master of Baroque sculpture—the apotheosis of the



Fig. 9.—PIAZZA AND CHURCH OF THE CARMINE, NAPLES.

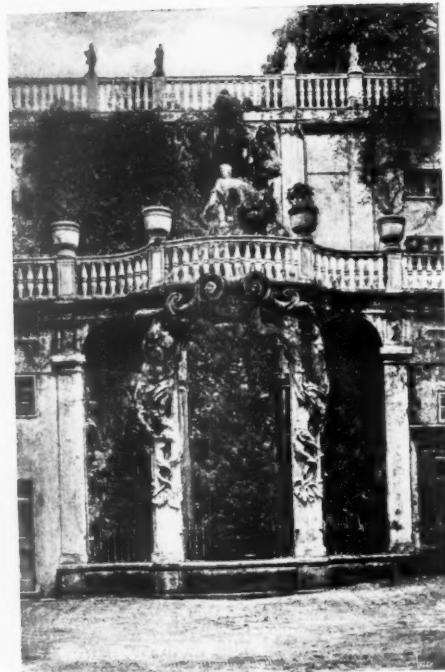


Fig. 11.—PALAZZO PODESTA, GENOA: CORTILE.



Fig. 10.—S. MOISÈ, VENICE.



Fig. 12.—FONTANA DEI CAVALLI, ANCONA.



Fig. 13.—SCHLOSS MIRABELL, SALZBURG: STAIRCASE.



Fig. 15.—THE RESIDENZ, SALZBURG: DOORWAY.



Fig. 14.—THE PFERDESCHWEMME, SALZBURG.



Fig. 16.—MOZART'S BIRTHPLACE SALZBURG DOORWAY.

living and sentient human body. What do concern us more nearly are those of his works where sculpture and architecture cannot be distinguished apart—his fountains and his altar-pieces. Of these, the former have the greater artistic value, and constitute one of the pleasantest features of Rome in their endless variety and charm, always reminding the Northern visitor of the joy of running water in these sunny streets and—if he be discerning—of the wonderful appreciation of water by the Baroque architect. At times water was desecrated by some overbearing Colossus, such as the *Aequa Paola* on the Janiculum hill, at other times it was harnessed to some absurd contrivance to annoy a spectator, but in the majority of cases it was ennobled and glorified as the principal feature of garden or piazza. So do Bernini's fountains appeal to us to-day more forcibly than his muscular or sensuous angels perched on gorgeous altars, or their flying brethren of the heavens on the Ponte S. Angelo.

Nearly contemporary with Bernini was another great Baroque architect, Francesco Borromini (1599-1667), who also had a large practice in Rome. Almost all of his buildings are marked by his love of a curving line, whether in plan or elevation, and in most cases this foible led him astray. His worst, and some might say his most characteristic, design is the strange church of S. Carlo alle Quattro Fontane (1640-77), one of those garish examples displaying the most objectionable features of the period. In other churches—S. Filippo Neri, S. Ivo, and S. Andrea delle Frate—in his new interior of the Lateran church, and to some extent in his work at the Villa Falconieri, at Frascati, the same tendency is apparent, but in one remarkable exception—S. Agnese, in the Piazza Navona (1645-50)—he suddenly becomes great and dignified, in spite of his predilection for the curve at all costs.

Among other names familiar to students of this period should be mentioned that of Carlo Maderna (1556-1629), whose prominence arises from his having lengthened the nave of St. Peter's and from his familiar west front to that church. But it still remains undecided whether Maderna was responsible for the error which has for ever ruined the effect of Michelangelo's dome, or whether he was simply obeying the dictates of a vulgar plutocrat in clerical robes. His other work, at all events, betrays less of this objectionable lack of taste.

Then there were several other architects of the seventeenth century in Rome who deserve notice even in this brief survey. Pietro da Cortona (1596-1669) designed several churches, and among them S. Maria della Pace stands out—small and little known as it is—as an example of the style at its very best, in this case simple and restrained. Another excellent church is S. Maria in Campitelli (1665), by Carlo Rainaldi, who carried out the fine west front of S. Maria Maggiore, and whose father also practised as an architect. Alessandro Algardi (1602-1654), Martino Longhi the younger (1657), and Domenico Zampieri (1581-1641) added to the rapidly increasing number of Roman churches; while other names are connected with the beautiful villas on the Alban Hills, where the Papal families were laying out magnificent gardens, shaded by cypresses and cooled by fountains, looking across the dusty Campagna towards the purple dome of St. Peter's.

The Baroque period in Rome closed with an Indian summer in the eighteenth century, when some of its greatest monuments were erected. Alessandro Specchi's Spanish Steps (1721-5), in the Piazza di Spagna, and Alessandro Galilei's vast façade at the Lateran (1734) are noteworthy, and are familiar to all visitors to Rome, but Niccolò Salvi's Fountain of Trevi (1735-62) and Ferdinando Fuga's west front of S. Maria Maggiore (1750) may be regarded as the culminating masterpieces of the period. Their late date may be explained by the fact that Rococo influence hardly penetrated this essentially Baroque city, the façade of S. Croce in Gerusalemme (1744) being an isolated example.

The history of the style in the rest of Italy may be briefly considered under two general heads, the North and the South, taking Rome as the point of division.



Fig. 17.—CHURCH OF VAL-DE-GRÂCE, PARIS.



Fig. 19.—SAINT LOUP, NAMUR.



Fig. 18.—HÔTEL LAVALETTE, NOW ÉCOLE MASSILLON,  
PARIS.



Fig. 20.—SAN JOSÉ, MADRID.

Lombardy, Piedmont, Venetia, Tuscany, Umbria, Liguria, and the Marches form the most important section of Italy, Sicily and the South being less accessible and less familiar. In the former group Renaissance architecture had obtained a firm hold, varying its characteristics considerably in each important state or town. A Venetian school and a Florentine school are easily recognised by their differences from prevailing design in Rome. In Florence, as in the surrounding districts of Umbria and Tuscany, the Baroque movement, except in garden design, made comparatively little progress, and where a scarce example does occur it is usually only an unconventional rendering of the style which the golden age of the Medici had so deeply imprinted everywhere.

Over the Apennines, however, in the Papal States, lay a rich country which was seriously affected by the Counter-Reformation as the patrimony of St. Peter, and in many of these old, decayed cities may be found the broken pediments and bold features of the seventeenth century. In Bologna, where the last great school of Italian painting still preserved a semblance of the Renaissance genius long after all Italy, except the *Tenebrosi* of the South, had laid aside its brush, a group of Baroque architects developed an interesting treatment of streets with arcaded fronts to their palaces, while many churches followed the fashion set in Rome by Bernini and his followers.

In Venice the deep-rooted tradition of Sansovino and Sammichele found its later counterpart in the work of Baldassare Longhena (1604-82), perhaps the most consistently successful architect of his day, whose three finest buildings—the Salute church (1631-82) and the Pesaro (1679) and Rezzonico (1650) palaces—lie on the immortal highway of the Grand Canal. This superb setting has enabled his masterpieces to be judged in the unaltered situations for which they are so obviously designed, and has served to divert from them the merciless abuse usually accorded to all architecture of the period. In Venice and in the adjacent lagoon towns exist numerous smaller Baroque examples, the way to Padua being lined with a rich cordon of palaces of the Venetian nobility.

Genoa had a great master of her own in Galeazzo Alessi (1512-70), who stands in relation to the movement very much as does Michelangelo, in that he pointed the way without actually venturing far along it himself, though his Porta di Molo partakes of Baroque characteristics. One of his contemporaries, Giovanni Battista Castello (1576), a painter by training, was designing a series of palaces noteworthy for richly modelled ornament as Alessi's were for bold and masterly design, and a combination of these two features inspired the huge palaces built by Rocco Lurago (1590) and Bartolommeo Bianco (1654). In these great buildings, notably the Municipio (1566), the Palazzo Balbi (1609), the Palazzo Durazzo Pallavicini (1620), and the Università (1623), is exhibited the finest type of the Italian town mansion of any period, with the exception of the Palazzo Farnese at Rome. In their villas at Sampierdarena and at S. Francesco d'Albaro, too, the Genoese evolved a more refined and restrained type than can be found on the Alban Hills.

In Milan, and especially in Turin, a prosperous nobility accepted Baroque architecture with open arms, the latter city presenting a whole museum of the period, with at least one memorable example in the Superga votive church some miles outside the city, built in 1717-31, from the designs of Filippo Juvara, most famous of the Piedmontese architects.

In Southern Italy the Baroque movement spread the more rapidly because the Renaissance had never really penetrated its mountain-bound fastnesses. Naples is full of examples, most of them barely attractive, and may be said to have a preponderance of Baroque architecture in her squalid and motley streets. All down the shores of the Adriatic—in Ancona and Foggia and Bari—all over the rough hills and littoral of Sicily, palaces, churches, and fountains of the seventeenth century abound. Palermo, Messina, Catania, each boasts a long list, and across

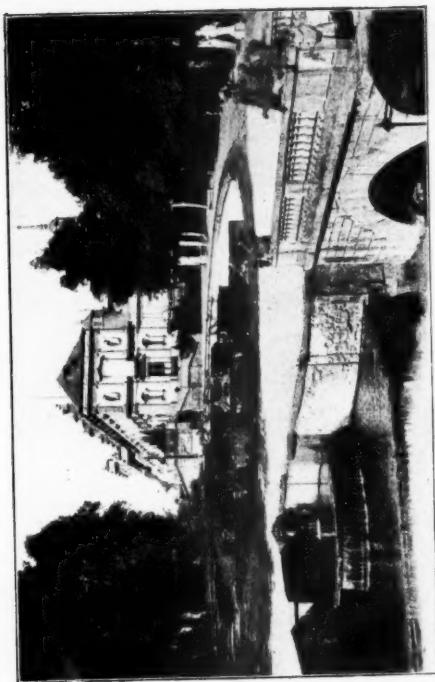


Fig. 21.—THE ROYAL PALACE, LA GRANJA.

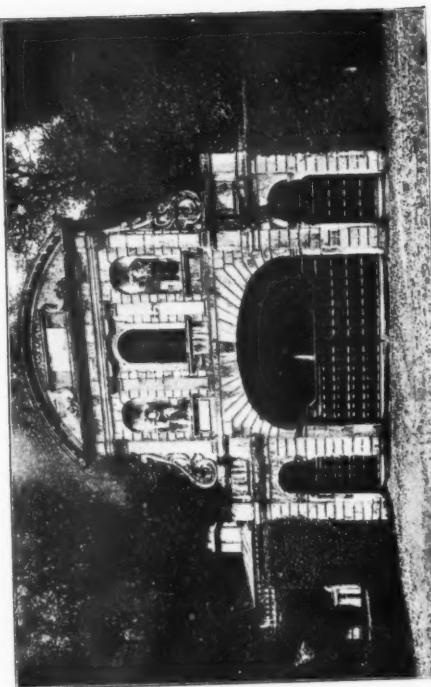


Fig. 22.—OLD TEMPLE BAR (NOW AT THOROLDS PARK).

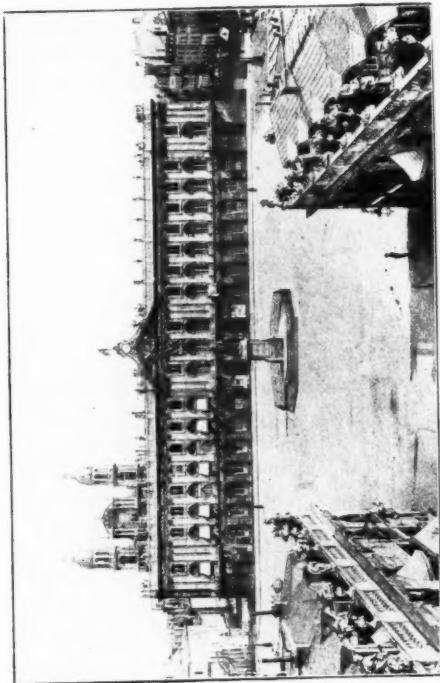


Fig. 21.—PLACE STANISLAS, NANCY.

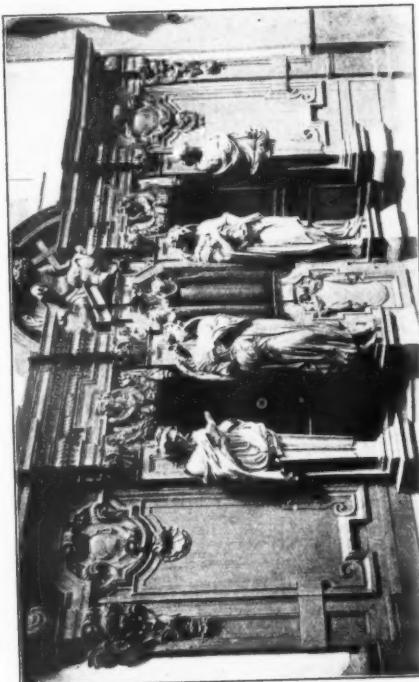


Fig. 23.—NOTRE DAME D'HANSWYCE, MALINES: A CONFESSORIAL.

the sea, in Malta, the same influence may be traced. The rule of Spanish grandees during the period is not without importance, for from the outset Spanish taste was naturally sympathetic to such tendencies. But Southern Italy possesses a special interest, in that Baroque architecture there appears perhaps to its greatest advantage. Against the hard, clear blue of the southern sky, reflected in the deeper tints of the Adriatic or Mediterranean seas, and surrounded by a picturesque, uncivilised people, its vagaries become less apparent and its originality assumes an added charm. The deep shadows of its bold arches, the rich decoration of its façades, the delicate ironwork of its windows, all these seem specially suited to a semi-tropical land. And here in Lecce or Syracuse, where it is easiest to study and appreciate Baroque, the examples we find are seldom the great churches and monumental palaces of Rome or Turin, but for the most part smaller buildings in narrow, sunlit streets, built by provincial nobility and merchant burghers for worship or for habitation. Here in the blazing glare of a southern sun, among the gay tints and bustle of a remote Italian market town, may we best understand the meaning and attraction of this seldom understood style.

#### IV.

It stands to reason that a movement so essentially Italian in its character and origin should remain more or less an exotic in other countries. The most obvious exception, at first sight, appears to be Spain, where the Renaissance had never gripped popular taste, and where Catholic influence was particularly strong. The Escorial is almost the only large building in Spain which approximates in any degree to the *Cinquecento* in Italy, and it has established Herrera's reputation on an enduring basis.

But beyond this great example the Jesuits, who brought the seeds of the new style from Italy, found little of Renaissance days that was not grotesque or *plateresque*—in other words, a strange commingling of Gothic, Moorish, and Cinquecento detail. The Society of Jesus was founded by a Spaniard, and his native land was one of the first to feel the effects of his missionary and educational zeal. The principal Baroque buildings in Spain were connected with Jesuit churches or Jesuit schools, although, as in Italy, the fountain, the garden, the triumphal arch, and such like trappings of towns and mansions began to acquire a new importance. The celebrated Puerta de Alcántara at Toledo, the Arco de la Foncisa at Segovia, the Archbishop's Gate at Seville, and the fountains in the Place of Oranges at Cordova, all illustrate this tendency in minor work, the Toledo Bridge at Madrid (1732) being larger and leaning to Rococo. The largest scheme of civic adornment is to be found in the Plaza Mayor at Salamanca (1710-80), a fine square, with the Town Hall forming part of one side, all in a late Baroque style. Salamanca was the seat of a University and the chief educational centre for all Spain, hence the headquarters of the Jesuits and the most Baroque city in the country. Their Seminario Conciliar, or Colegio de la Compañía (1617-1750), was their largest institution, and was of vast dimensions, with a great domed church as its principal feature. The University at one time comprised forty colleges, many of the seventeenth century, and numerous Baroque churches were provided for the spiritual welfare of the students. Seville, Granada, Madrid, Cordova, Valencia, and Toledo all possess numerous examples of the period, and La Granja, near Madrid, is an important group of buildings and gardens by Juvara and other Italians. At Loyola is a huge church (1682) commemorating the founder of the Jesuit order, and at Santiago de Compostella the cathedral is one of the largest and most elaborate churches of the Baroque period in Spain.

Belgium, though in a different part of Europe, was affected by very similar influences from Italy, and the most important instances of the period are to be found in the Catholic centres, such as Malines and Brussels. A factor which is sometimes overlooked is the part played by

Rubens in buildings at Antwerp, for this great painter was suffused with the spirit of Baroque. Jesuit churches at Brussels (1657-76), Malines, Louvain (1650-6), Bruges, and Antwerp confirm the tendency indicated elsewhere, the first three being the work of Luc Faidherbe, of Malines, the most prominent Flemish architect of his day. Primarily a designer of churches, his work also included various town houses in Malines, which are less ostentatious and bizarre than those rich buildings which the Jesuits erected all over Continental Europe for the nominal purpose of devotion. There is much of interest in smaller works of the period—doorways, fountains, choirstalls, and pulpits—but no mention of Belgium would be complete which omitted a reference to the remarkable Guild Houses built during the seventeenth and eighteenth centuries on the Grande Place at Brussels, typical of Baroque domestic architecture in this land at its richest, quaint and attractive.

Protestant Holland under the sober sovereignty of the Orange princes never embraced this distinctly Catholic style with enthusiasm. Her architecture always closely resembled that of Germany, and her gabled houses changed but little with the addition of Baroque elements, till the severer classic forms, which in England we dub "Queen Anne," ousted all ribald mannerisms from the field. No greater contrast could be imagined than between the barn-like simplicity of the Dutch meeting-house and the garish profusion of the Jesuit churches in Belgium.

In Germany a similar division differentiates the seventeenth-century architecture of Protestant and Catholic States. The southern and western States, with part of Switzerland and all modern Austria, were largely Catholic, Protestantism being chiefly confined to Prussia. The former territory was the part of Germany where Baroque architecture was introduced to any appreciable extent, and may be regarded for our purpose as one homogeneous whole. North of the Alps the Renaissance had assumed a totally different aspect from that which it had worn in Italy. As in England, a strong Gothic tradition still persisted, and the plentiful admixture of Italian detail produced a result clearly akin to our own Elizabethan or Jacobean styles. It is a common error among critics to classify any markedly elaborate building of this nature as Baroque, in the face of all logic and facts. If the term Baroque is simply an adjective, it may be applied to buildings of the first centuries of our era with as much appropriateness as to works of the seventeenth century; but if the authentic definition is to be accepted, as it now generally is, then there is a Baroque period following the dying Renaissance in a strictly logical sequence. So also in these northern countries is there a distinction—difficult though it may be to draw—between the Baroque which came with the Jesuits from Italy in the early seventeenth century and the Rococo which originated at the French Court of Louis XV. about a hundred years later. Of the former variety numerous examples exist at Prague and Salzburg; the latter is represented in the Zwinger Pavilion (1711-22) and the Frauenkirche (1726-38), at Dresden, while in the great buildings of the two Fischer von Erlach in Vienna and other parts of Austria may be seen a transitional type. The familiar bulbous, lead-covered spire which one sees all over Southern Germany and Austria is usually an indication of a Baroque design below, and the important buildings of the period are far too numerous to mention. Here and there are vast conventional establishments, such as that of Melk, on the Danube, or Ensiedeln, in Switzerland; strange and beautiful villas and gardens, like that of Schloss Hellbrun; great châteaux of princes, such as the Residenz in Wurzburg; quaint town halls, like the Rathhaus at Bamberg; fountains and statues; and, above all, Jesuit churches. In Prague, Salzburg, Vienna—to a less extent in Munich, Bamberg, and Wurzburg—we have practically Baroque cities.

The conditions in France again differ from those in any country previously mentioned. The vigour and strength of French architects during the Henri Quatre period had dispelled all the bastard Renaissance of the type so frequently met with in the châteaux of Touraine and

in certain churches of Paris. Under such masters as Salomon de Brosse, and under the Italian-loving patronage of Marie de Médicis, a parallel movement to that prevailing in Rome was set in motion, fostered by the inevitable Jesuit incursions. Typical of the one is the Medici fountain in the Luxembourg Gardens, of the other the Church of St. Pierre et St. Paul in the Rue St. Honoré, both in Paris. The mature Baroque appears in the Val-de-Grâce Church at Paris and in the larger buildings of Nancy, near the German border, while an interesting—because inexplicable—instance of over-developed Baroque appears in a church at Nevers. Examples of this kind are plentiful enough near the Belgian border, where their origin is obvious, but this case at Nevers forms a baffling problem for the architectural historian. In Paris—especially in the older quarters round the Rue de Rivoli—and in most French provincial towns another aspect of Baroque design is to be found, in the rich doors and courtyards of many fine old town houses built in the late seventeenth and early eighteenth centuries.

Lastly, even we in England have not remained altogether immune from the influences of this egregious style. It is true that we have had no Jesuit invasions, and that our country has remained Protestant as a whole. It should also be recognised that the caprices of our Jacobean architects are Baroque rather in the spirit than in the letter, and that in the stately or the absurd plan we find late Italian influence rather than in matters of detail. But in Inigo Jones' York Stairs (still more in some of his drawings), in Wren's steeples, and in Temple Bar, even in his planning and his domes, in much of his decoration, and in some of Gibbons' carving, most of all in Vanbrugh's vast palaces at Blenheim and Castle Howard, may be found the exact counterpart of Baroque architecture abroad.

## V.

In a singularly illuminating passage in one of his essays Walter Pater has something to say of the functions of criticism.

"Theories which bring into connexion with each other modes of thought and feeling, periods of taste, forms of art and poetry, which the narrowness of men's minds constantly tends to oppose to each other, have a great stimulus for the intellect, and are almost always worth understanding."

It is to be feared that few people have stimulated their intellects on the problem of the position and value of Baroque architecture, or on its relation to the Renaissance and to our own day. The narrowness of men's minds has for too long locked the gate and pocketed the key, so that no one knows what is within.

But now the lock has been forced, and in the steady increase of interest in the subject may be seen a dawning comprehension that this style may have a certain worth, and, though it may never be sanctioned for study among aspirant youth, elders and betters are already freely borrowing from its stores for their vulgar strife in competitions. It is still heresy to appreciate its virtues, but its boldness offers convenient hints for many an English public building and many a surreptitious detail.

Let us then take heart of grace and approach the thing in all its awful horror with the pure Arthurian soul of an Institute examiner. It is not to be denied that the greater number of examples of this period, if divested of the spirit and surroundings of their age, display a bald and heartless materialism which is fortunately lacking in all the greatest achievements in art. The age of Pericles has this in common with the age of Bramante, that in it the service of beauty became a religion, and, though neither of these ideals is comparable, in the writer's mind, with the more lofty if less enlightened aspiration of the Gothic craftsmen, yet each of them surpasses by far the meretricious pride of the seventeenth-century Jesuits and the conscious ostentation of much Baroque architecture.

The greatest error committed by these builders lay, not in the magnificence nor even in

the originality of their work, but in its shameless disregard of scale and sobriety. There are churches in France and England of the purest Gothic architecture, loaded with mouldings and ornament till hardly a bare stone remains, which yet contrive not to offend a single canon of taste. On the other hand, there are Baroque buildings comparatively simple in design where almost every line contravenes an axiom of good art. This unfortunate failing is due to the underlying spirit which inspired architect and wealthy patron alike—the spirit of pride.

Moreover, although the seventeenth century witnessed the afterglow of the Counter-Reformation, its churches produce a more general effect of utter paganism than any others erected before or since that time. There is more devotion implied in the bare walls of an old village meeting-house than in the blazing decorations of the Gesù church at Venice.

But, having admitted these serious and undeniable drawbacks, there is much to be said in favour of Baroque architecture from the strictly architectural point of view. The Renaissance, as Michelangelo and Palladio left it, had not quite run its course in Italy, and had not seriously begun its career in other countries. When it attained its highest point—in England and France—much of its value was derived from Baroque developments in Italy.

For there was an actual development and advance from the work of Michelangelo and Palladio to that of Bernini, Longhena, and Bianco. More especially is this evident in planning and in the general disposition of the parts of a building. That very pride which so often is the undoing of the style was its greatest asset in certain respects. The magnificent staircases and terraces, gardens and fountains of the seventeenth century are a step forward from Michelangelo's day. Town-planning, as we understand it, was first seriously undertaken in Baroque Rome. The Piazza di S. Pietro, the Piazza del Popolo, and the Piazza Navona are typical instances of civic design on the grand scale, and in France, Spain, and Austria many similar cases are to be found. It would be a mere work of supererogation to mention any of the villas and gardens which are so characteristic of the period, and which again mark the advance from Cinquecento times. The design of windows and doors shows a distinct progress of evolution, while the palatial staircase may be said to be a Baroque invention. The art of wrought iron underwent many improvements, and decorative sculpture only ceased to be uniformly successful when their very brilliance and facility led its masters astray. The Baroque dome appears in countless forms, and is usually worthy of most careful study, if not of admiration. In Austria especially a new type of campanile or tower was produced which adds picturesqueness to most of its towns. The close attention devoted to matters of ornamental detail had a good effect in substituting for the portable picture a more permanent treatment with panelling, so that painting became an integral part of a mural composition. Modelled plasterwork assumed a new importance, and seventeenth-century artists acquired an almost fatal ease with this material.

But the strongest point in favour of Baroque architecture as a whole is a certain inherent breadth and splendour of conception which, wherever it is found, seems to indicate its double origin in the traditions of Imperial Rome and in the greatness of the Catholic Church. The most famous buildings of the Renaissance are isolated palaces and churches scattered in crowded streets or on lonely hillsides, with but little regard to surroundings. The Baroque architect, on the other hand, appreciated the possibilities of a site, and placed his greatest works with consummate skill. The masterly grouping of Kloster Melk or of the Salute is wonderful, as are the perfect lines of S. Maria della Pace in Rome.

Finally, in venturing to criticise this long period of historical architecture, the architect must not forget its contemporary setting—the sumptuous, heavy furniture, the glittering candelabra, the wealthy cardinals, with their gorgeous retinues in an age of dazzling pomp. Is it to be wondered at that we, with our sombre garments, our anaemic over-civilisation, and our electric trams, feel a sense of something inappropriate in the *milieu* of a Baroque city? Realising this only we may attain a clearer understanding of its architecture.

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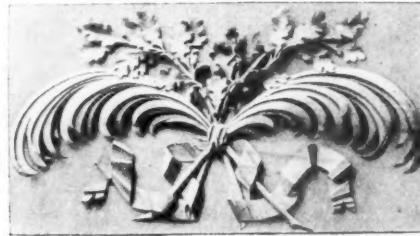
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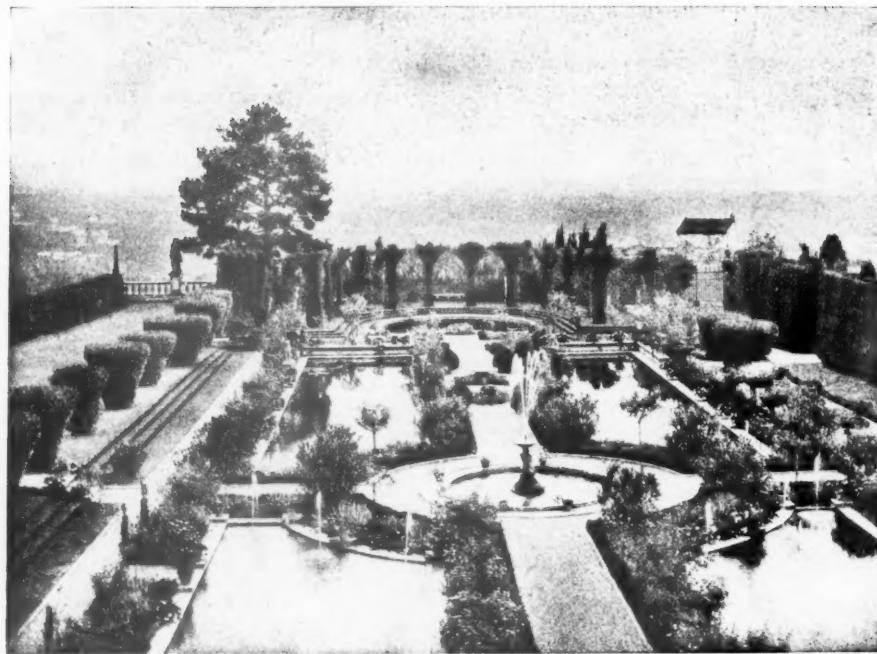
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THE MODERN WATER PARTERRE AT VILLA GAMBERAIA, NEAR FLORENCE.  
From *Garden Craft in Europe*.

## REVIEWS.

### GARDEN CRAFT.

*Garden Craft in Europe.* By H. Inigo Triggs, Author of "Formal Gardens in England and Scotland," "The Art of Garden Design in Italy," &c., 4o. Lond. 1913. 35s. net. [B. T. Batsford, 94 High Holborn.]

Mr. Inigo Triggs has made the subject of gardens his own. We have the result of his earlier labours in *The Formal Gardens of England and Scotland* and *The Art of Garden Design in Italy*. Now we are further indebted to him for a quarto volume on "Garden Craft in Europe." This is a well-illustrated epitome and compendium of handy size which will be esteemed by the architect and the "gardenist" as well as the general reader. It may also be commended to those local authorities and town-planning experts who are studying how to improve the surroundings of our open spaces and buildings.

The volume is published by Batsford in the excellent manner now a familiar tradition of this house, surely worthy of honorary recognition by architects. It is provided with a good index and "bibliography of the principal works treating of European garden design and its history, together with the names of the chief engravers of views of gardens."

The book does not pretend to be an exhaustive study of garden craft, but it covers a wide chronological period, describes some of the best and most typical gardens in Europe and gives much information on the subject. There is a similarity about the gardens of all nations which shows how cosmopolitan are the principles, and how gradual the evolution of their design.

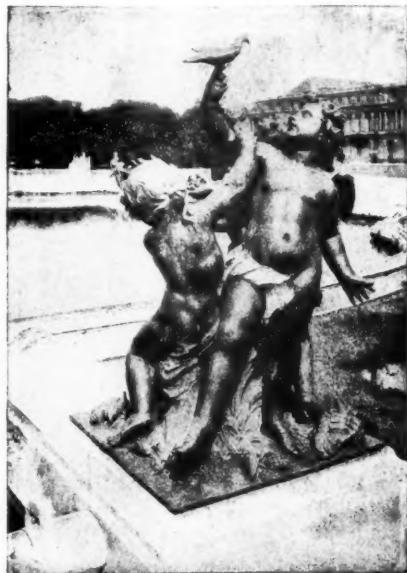
Garden planning is first found in Europe in the courts and peristyles of Classic Greece, and later in Rome. These were integral parts of the house and echoed its proportions, balance, and rhythm. The excavations at Pompeii have shown us many beautiful examples, usually small. In such an environment they must have been delightful, with their light and elegant columns, delicate decoration, marble and bronze figures. Trees and plants must have further added to the charm. These were necessarily pleached and clipped to restrain their growth within reasonable limits, thus probably originating topiary work.

In his second chapter Mr. Triggs briefly describes mediæval gardens, and for want of better records he illustrates them by "stray pictures" from breviaries, missals, &c. These contain delightful suggestions. Some have been adopted in modern work. The strictly circumscribed areas of towns and castles within their moats and entrenchments

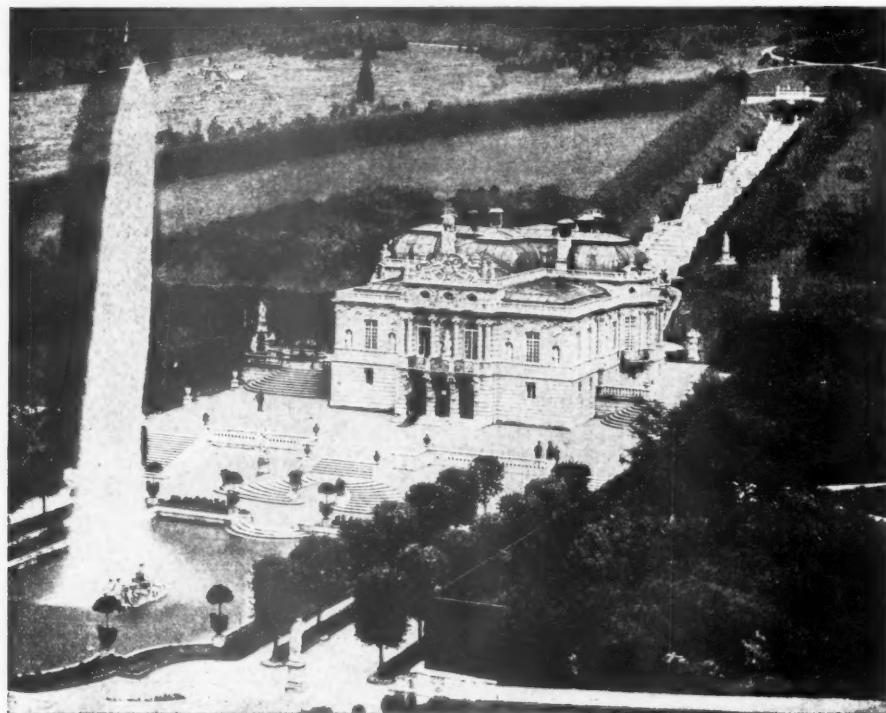
necessarily militated against undue size of gardens and their irregularity against symmetrical planning.

The revival of the ancient Classic traditions with

the Renaissance, a period of intense vitality, full of the joy of life, was on grand and sumptuous lines. Vignola, Giulio Romano, Du Cerceau, Le Nôtre,



VERSAILLES: GROUPS OF CHILDREN ROUND THE PARTERRE D'EAU, BY L'ESPIONOLA.  
From *Garden Craft in Europe*.



THE CASTLE OF LINDERHOF.  
From *Garden Craft in Europe*

Inigo Jones, and Sir Christopher Wren are splendid names associated with garden design at this epoch, and their names attest the scholarly beauty and architectural character of the gardens of this age.

Italy first felt the effect of the awakening, and Mr. Triggs gives an interesting account of its characteristic garden architecture. He has only sparingly drawn upon his earlier folio, and any extension of this subject must necessarily repeat much that is there published.

There are three chapters on French gardens, and the author has largely relied on old engravings for his illustrations of these, supplemented by photographs of some exquisite sculpture and accessory details. Le Nôtre is the dominant figure amongst the great garden-designers of France. His mind soared above ordinary mundane restrictions, and his power and imagination were amazing. Like Michael Angelo, he dwarfed all other personalities in his art, and in no other projects can be better seen the immense vitality and magnificence of the Renaissance and the extent of the reaction from the narrower conditions of mediaeval existence.

Mr. Triggs writing of the Netherlands refers to a period when "it seems to have been the ambition

of every owner to have his garden engraved, and these engravings, together with the surveys, prepared to show the drainage of the polders, enable us to study the plans of practically every country seat in the north of Holland." It is something to possess so valuable a record of the garden craft of the Low Countries. An interesting selection of these is reproduced.

English formal gardens are happily described. In a measure they owe their charm to our climate, which favours growth. There are no trees and lawns like ours, and no better background can be found for garden effects. The simple reticence of English parterres tapestried on the greensward, with the sparing use of architectural embellishment, makes our old gardens beautiful places of rest and recreation.

The gardens of Germany and Austria occupy another chapter, and, as in the case of the Netherlands, the engravings of Merian and others have been borrowed for purposes of illustration.

The Moorish occupation of Spain left a record of wonderful architectural achievements, and Mr. Triggs refers to the beauty of their gardens. Such gardens as the Generalife and the courts of the

Alhambra may be taken as some evidence of the height to which Moorish civilisation attained.

In the nineteenth century the love of beauty seems almost to have died, and the landscape school of garden design is one of the unhappy phases of the decline of art. Mr. Triggs refrains from publishing plans of this school. The *jardin anglais* has still a baneful influence on the Continent. It marks an epoch that rejected tradition and toyed with mediævalism, and failed to realise that the garden should be co-ordinate with the house.

When garden design, painting and sculpture became divorced from architecture they lost that practical need and expression which gave them character and significance, as is becoming recognised, and books such as this, written by an architect practised in design, are of wholesome influence and of happy augury for the future.

HERBERT WIGGLESWORTH [F.]

#### THE ASIATIC FRINGE.

*The Fringe of the East : A Journey through Past and Present Provinces of Turkey.* By Harry Charles Lukach. 8o. Lond. 1913. 12s. net. [Macmillan & Co., St. Martin's Street, W.C.]

Mr. Harry Lukach, the author of this exceedingly interesting contribution to "Near East" literature, brings to bear upon the subject a refined sense of humour, a keen appreciation of art, and a very exhaustive and reliable fund of historical erudition. Although not, strictly speaking, perhaps, within the bounds of an architectural review, still there is a great deal in the book which throws fresh light on certain architectural monuments of the Asiatic "Fringe." A reference to Eastern monasteries brings into prominence the curious fact that their enormous numbers in relation to the population and area of the district must have always prevented the growth of any large and important monuments such as we associate with the monasticism of the West. A long and exhaustive account of Athos, with excellent illustrations, is of special interest at the present moment, when that remarkable centre of the Orthodox world seems to be in a state of revolution.

The architectural photos are excellent in almost every case. The interior of Ay-Sofia, the ex-cathedral of Nicosia, does not perhaps do justice to its actual dimensions. This is due possibly to the view being taken from aloft at the west end, a position which always seems to have the effect of diminishing the size of an interior. The empty bareness of the building since its conversion into a mosque may also tend to the same effect.

Amongst the grand crusading castles of Cyprus and the Holy Land Mr. Lukach wandered with a sympathetic spirit. Hilarion, and the mighty Biniyâs, and, perhaps most wonderfully preserved of all, El Hosen, afford material for description and charming photos. The last-named castle has not been photographed since the days of Rey's

*Architecture Militaire* of fifty years ago, and much dilapidation has taken place during the interval.

Towards the end of the book there are several architectural photos which will be new to students of Saracenic art. The great mosque of Hama (perhaps better known as Hamath) possesses some peculiarities of design, and there is an imposing view of the great fortress of Aleppo. To judge by some of these photos the North Syrian Moslem buildings are often completed by the addition of a heavy flat stone cornice supported on corbels in three or four courses which project several feet from the wall.

The photos of the great mosque at Damascus are interesting as showing the results of its "restoration" since the great fire of a few years ago. A printer's error must be pointed out in the case of a photo which passes under the name of the Synagogue, Nazareth, which is in reality a view of some Orthodox church interior.

Mr. Lukach is to be complimented on having produced one of the most readable and entertaining books in the vast domain of travel-literature of the moment, and all the more notable because the Near East is every day becoming so much nearer and its bypaths well worn by the feet of the tourist.

GEO. JEFFERY, F.S.A.

#### ESTIMATING.

*How to Estimate : being the Analysis of Builder's Prices.* By John T. Rea, Architect and Surveyor. Lond. 1913. Price 7s. 6d. net. [Batsford.]

The usefulness of this book is so widely recognised that any general criticism of its quality is superfluous. This, the fourth, edition has been thoroughly revised, and extensive additions have been made both to text and illustrations, the former being increased from about 410 to 530 pages, and the latter from about 40 to 400 figures.

The chapter on "Cost of Buildings," which now includes particulars of the cost of about 170 actual buildings as well as a large number of estimated figures, has been expanded from six pages to thirty. Where the prices are those of actual buildings the dates of erection are in most cases given ; this is a point which has been overlooked in some books, so that the prices become useless for comparison with those of new works, because the reader has no opportunity of allowing for fluctuating, and generally increasing, rates of cost of materials and labour.

An instructive note upon the increasing uses of electricity in connection with builders' plant has been added to the chapter on "Labour."

In the chapter headed "Pavior," it is stated that the life of asphalte paving is from 15 to 20 years. This, in cases where the surface will be subjected to fast and heavy street traffic, is a little misleading, as the speed of destruction varies so much with position and circumstances. In some London

streets the combined influences of the hot sun and motor traffic have recently proved so injurious that it has been found impossible to make asphalt last even 15 months, and granite has been substituted. To this ("Pavior") section of the book great additions have been made in order to embody information upon modern road construction.

Much labour has evidently been devoted to the production of this new edition, which is decidedly an advance upon its excellent predecessors.

MATT. GARBUZZ [F.]

#### STRUCTURAL ENGINEERING.

*Structural Engineering.* By A. W. Brightmore, D.Sc., M.Inst.C.E., sometime Professor of Engineering at the late Royal Indian Engineering College, Coopers Hill, Joint Author of "Waterworks Engineering." 2nd edition. 10s. 6d. net. [Cassell & Co. Ltd.]

The fact that a new edition of this book has been required within five years of the date of first publication proves that the work has found favour among the class of engineering students for whom it was principally written. The close connection between the subject of structural engineering and certain branches of architectural construction—a connection so intimate that to many of us there is no valid distinction—naturally raises the question of to what extent the present book is likely to be of service to architects. The rather desperate conclusion to which I have regrettably been driven is that there are not more than perhaps a dozen men in the architectural profession to whom the work can be recommended. The writer, in common with the majority of teachers in engineering colleges, considers the subject of structural engineering primarily from the mathematical standpoint; whereas persons who are constructors first and, if at all, teachers afterwards, deal with these problems from the constructional point of view, the mathematical solution being very justly treated as a secondary question. The architect, in common with a large number of engineers in practice, is, fortunately for his work, among this latter class, and although his knowledge of the mathematical branch of his studies is often capable of considerable improvement, such will result not from a perusal of abstruse text-books, but from a study of the main principles of applied mathematics and mechanics. A conscientious study of the present volume by the average architect would result only in the undermining of his existing limited knowledge of structural mechanics, and in the intensification of his dislike of the subject. For this, of course, responsibility rests by no means with the author, but with the upholders of a perverse custom which makes of architecture and structural engineering two professions, taught, however nearly they may approach one another in the case of practical work, from widely differing standpoints.

HORACE CUBITT [A.]

#### THE PRESERVATION OF DECAYING STONE.

The Science Standing Committee of the Royal Institute of British Architects has recently had some communications from the Society for the Protection of Ancient Buildings, which has courteously placed at its disposal the experience it has gained up to the present in the matter of treating decayed stone, and I have been privileged with the charge of submitting a *précis* of the above Society's statements for the benefit of readers of the JOURNAL as a subject of general knowledge.

The Society prefaces its remarks by saying that no process can be regarded as final—though many have most valuable results—and that masonry needs continual attention, especially in districts where the atmosphere is charged with sulphur.

Previous to any treatment the Society recommends the removal with stiff hair-brushes of the crumbling surface, except where this would obliterate fine carving, and the raking out of loose joints, and that in these operations steel tools and wire brushes are never to be used. When bituminous deposit is present on the surface of decaying stone it must be removed before the preservative solution can reach the stone. Where this cannot be effected by brushing alone, a jet of steam will soften the deposit. An acetone paint-remover may be used to assist this process.

Joints are then made good in "good hydraulic lime mortar," and where the mortar would otherwise be in large masses pieces of well-burnt hand-made tiles saturated in water should be inserted to prevent shrinkage in setting and so causing cracks. Also by wedging pieces of tiles firmly into the joints or into chases cut for the purpose the mortar gains much strength.

The writer may here draw attention to the growing recognition of the truth of the contention that Portland cement exercises a deleterious action on stone, a matter upon which researches are being made by an International Committee.

For treatment of stone containing a large percentage of lime, hydrate of barium is recommended (about 1 lb. of the crystals to a gallon of soft water, frequently agitated in a closed vessel). It might be remarked that this quantity would hardly dissolve in cold water, which can carry in solution about 7 per cent. at 40° C., 18 per cent. at 60° C., and as much as 90 per cent. at 80° C. The solution is very caustic and should be preserved out of contact with the air or it will soon exhibit a milky deposit and lose its virtue, but it may be kept in closed vessels indefinitely. It should be freely dabbed on with a soft brush, and the drier the stone and atmospheric conditions the better the result. As many as 50 coats at intervals are recommended in bad cases. The Society gives an interesting report received from Mr. Riley, the Superintending Architect to the London County Council, of the recent treatment of York Water

Gate by the above method. Here, after the removal of two cwt. of deposit of dirt and soot in addition to stalactites and bituminous matter which had to be softened by the use of steam, 354 yards super of Portland stone, after repointing with mortar, were treated during the advantageous conditions of the dry summer of 1911. Twelve to thirty coats of baryta (eighteen on the average) were given to the stone, and an analysis after a month proved that penetration had taken place to a depth of  $\frac{1}{2}$  inch. It should be explained that unless the lime in the stone has been converted into a sulphate baryta water will not enter into combination, and so the particles of still sound stone may remain open to attack by sulphur-laden atmosphere.

The monument above mentioned is in so central and accessible a position, and so near (much of it below) the surrounding gardens, that it should form a valuable object-lesson to Londoners interested in assessing the merits of the process.

Another process referred to is that in which a solution of sodium silicate (water-glass) is applied and subsequently one of sodium arsenate (a chemical used in calico-printing.) The result is stated to produce a binder and filler—possibly chemically unstable—rather than a stone reconstructor; certainly any chemical interaction between these compounds seems doubtful on theoretical grounds.

For sandstones the Society has no specific except to suggest the application of fillers such as alum and soft soap or paraffin wax in solution in some mineral oil, neither very lasting, as the report itself states.

Finally a thin coating of lime-wash made from fresh lime and boiling water and applied in two or three coats is strongly recommended as a general preservative, with such inert colouring matter (as for example umber) in the last coat as is required to tone with the surrounding work.

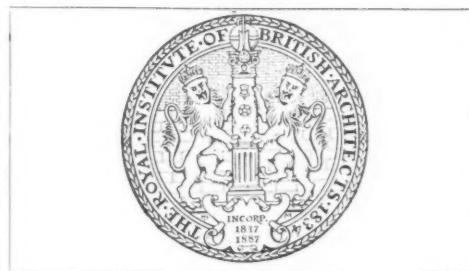
It is stated that this process has been adopted at Westminster Abbey. The writer certainly knows of one case in which this method was most effectively applied to a decayed Jacobean coat-of-arms in limestone in high relief and in a damp and sunless situation, whilst almost adjoining a new building was suffering from rapid decay after recent treatment with a patent preservative.

As to sandstones, it would be interesting to try the effect in some practical case of allowing a solution of pure silica to flow slowly (as from a sparge pipe) over the decayed work for a reasonable period. A 5 per cent. solution of silica in water is obtainable, and on evaporation the silica deposited will readily become insoluble, and should thus act as a cementing agent, though the process would be slow.

ALAN E. MUNBY,

*Chairman of the Science Standing Committee.*

May 1913.



9 CONDUIT STREET, LONDON, W., 26th July 1913.

## CHRONICLE.

### The Revised Schedule of Charges : Further Adjournment.

The adjourned Special General Meeting arranged for Monday, 7th July, to resume consideration of the draft Revised Schedule of Professional Charges, had to be abandoned for want of the necessary quorum under By-law 67. The By-law requires the presence of 40 members, of whom at least 21 must be Fellows, but there assembled only 35—viz. 19 Fellows (including the President and 10 members of the Council), and 16 Associates (including one member of the Council). The Session, which ordinarily closes in June, had been extended till the end of July in the expectation of getting the document through before the recess, but the whole business now stands over till next Session.

### Town Planning and Main Roads: R.I.B.A. Deputation to the Prime Minister.

The deputation from the Institute to the Prime Minister on Thursday, the 3rd July, was the outcome of a conference held over a year ago between the Institute and other interested bodies, the purpose of which was to devise means of impressing upon the authorities the necessity of co-ordination in the making of main arterial roads and the framing of town-planning schemes. As a result of the conference the following letter was addressed from the Institute to the Prime Minister :—

12th July 1912.

SIR.—A conference convened by the Royal Institute of British Architects, consisting of representatives of the Royal Institute of British Architects, the Royal Academy, the Institution of Civil Engineers, the Surveyors' Institution, and the Institution of Municipal and County Engineers, who are deeply interested in the development of Greater London, has been considering the serious position which is likely to arise owing to the fact that numerous Town Planning Schemes are being prepared for the districts surrounding London without any power existing to co-ordinate these different schemes, and to secure the carrying out by these schemes of the recommendations as to main roads which have been made both by the Royal Commission and by the Traffic Department of the Board of Trade in their valuable reports.

These Town Planning Schemes have to be approved by the Local Government Board, but they come singly, and the Board has no power to guarantee to any Local Authority that if it provides a portion of a main road running through its area, the remainder of that road will be carried out by the abutting authorities, nor has the Board any power to apportion the cost of such a main road equitably among these different authorities.

At present the authorities concerned are so numerous and disconnected that concerted action is hardly possible. The different bodies having rights and powers with regard to the making and planning of roads within the area of Greater London are as follows :—

*The London County Council* possess exclusive powers under the Town Planning Act within the Administrative County of London, and without their consent no joint body can be set up under Clause 55 of the Act.

*The Local Government Board* have power to supervise, amend, and approve action taken by Local Authorities under the Town Planning Act; power to call upon the L.C.C. and other Local Authorities to prepare a Town Planning Scheme.

*The London Traffic Branch of the Board of Trade* have power to spend a certain sum in studying traffic problems and issuing reports upon them.

*The Development and Road Board* have power under the Development and Road Improvement Funds Act (a) to make advances to highway authorities for improving existing or making new roads, (b) to construct and maintain any new roads. The Road Board acts through

*The Treasury*, who before approving the construction of a new road must consult the Local Government Board, and also be satisfied that notice of intention to construct has been sent to every highway authority affected.

#### *Greater London.*

Outside the L.C.C. area Town Planning powers under the Act are possessed by :—(a) The Councils of all Boroughs; (b) The Councils of all Urban Districts; (c) The Council of all Rural Districts, or a total of some 70 or 80 different authorities. It will, therefore, be evident that the consistent, dignified, and practical development of Greater London is a subject of great and pressing difficulty. No authoritative expert body exists empowered to deal with the main roads of the Metropolis as suggested by the Royal Commission, to co-ordinate the work of the different Local Authorities, and secure the planning and construction of the main arterial roads that are required to accommodate the traffic of Greater London.

The Conference of institutions interested in the subject is sure that the importance of the proper development of London is present to the mind of his Majesty's Government, and requests you to receive a small deputation to express its view that it is necessary to co-ordinate existing bodies for the special purpose of creating a system of main roads for Greater London.—We have the honour to be, Sir, your obedient Servants,

**REGINALD BLOMFIELD,**  
President of the Royal Institute of British Architects.

**EDWARD J. POYSTER,**  
President of the Royal Academy (in support of the  
Royal Institute of British Architects).

**EDWARD G. STRUTT,**  
President of the Surveyors' Institution.

**R. J. THOMAS,**  
President of the Institution of Municipal and County  
Engineers.

**W. C. UNWIN,**  
President of the Institution of Civil Engineers.

The Prime Minister replied promising to give the subject his consideration, and after the lapse of some months his attention was again called to the matter in the following letter :—

24th May 1913.

SIR,—We beg to draw attention to our letter of 12th July, asking you to be good enough to receive a deputation, and to hear its views as to the necessity of either appointing some Central Authority or conferring the necessary authority on some existing body to control the development of a system of main roads for Greater London.

We venture to point out that the action which it is urgent should be taken at once to secure the routes of these main roads need not entail a large present outlay, but would have the effect of avoiding a very heavy expenditure when, at some future date, the carrying out of the scheme of roads has to be taken in hand.

We wish to take the opportunity of emphasizing the extreme urgency of this matter. A very large number of Town Planning Schemes for greater London are now maturing, which include areas traversed by some 40 out of 120 miles of new main roads recommended by the Traffic Department of the Board of Trade, and we beg therefore to press for an interview at the earliest possible date.

We have the honour to be, Sir, your obedient Servants,

**REGINALD BLOMFIELD,**  
President of the Royal Institute of British Architects.

**W. C. UNWIN,**  
President of the Institution of Civil Engineers.

**EDWARD G. STRUTT,**  
President of the Surveyors' Institution.

**R. J. THOMAS,**  
President of the Institution of Municipal and County  
Engineers.

**PLYMOUTH,**  
President of the London Society.

The Prime Minister, in reply, consented to receive a deputation, which it was arranged should wait upon him in his room at the House of Commons on the 3rd July. The following representatives attended on behalf of the bodies interested :—

For the R.I.B.A.: Mr. Reginald Blomfield, A.R.A., Sir Aston Webb, C.B., C.V.O., R.A., Mr. H. V. Lanchester, Professor A. Beresford Pite, Professor S. D. Adshead, Mr. W. H. Seth-Smith, Mr. Raymond Unwin, Mr. Ian MacAlister, *Secretary*.

For the Surveyors' Institution: Sir Alexander Stenning, Mr. Leslie Vigers, Mr. H. Chatfield Clarke.

For the Institution of Municipal and County Engineers: Mr. H. E. Stilgoe, Mr. J. W. Cockrill, Mr. R. J. Thomas.

For the London Society: Mr. Raymond Unwin, Mr. Carmichael Thomas, Colonel Yate, M.P.

The deputation was received by the Prime Minister and Mr. John Burns, President of the Local Government Board, accompanied by Mr. J. Herbert Lewis (Parliamentary Secretary to the Local Government Board), Sir George Gibb (Chairman of the Road Board), Sir A. C. Monro, K.C.B. (Local Government Board), Mr. M. Bonham-Carter (Private Secretary to the Prime Minister), Mr. F. L. Turner (Private Secretary to the President of the Local Government Board).

Mr. REGINALD BLOMFIELD, in introducing the deputation, said their object was to lay before the Government certain considerations with regard to the planning of main arterial roads out of London, and more particularly in regard to the absence of co-ordination between the various authorities which had to deal with this matter. They wished to urge the establishment of some central authority to hold the balance between the

various interests, which would be able to handle the matter from a more comprehensive point of view than was open to any of these authorities individually.

Sir ASTON WEBB, speaking on behalf of the Royal Institute, said the importance and necessity of main roads out of London and their inadequacy at the present time were accepted. At the recent Road Conference it was unanimously agreed that the improvement of arterial roads leading out of towns was a matter of urgent necessity. Unless something was done very soon, the cost of carrying out this work would become prohibitive, and for other reasons almost impracticable. A great deal of surveying had been already done, and some admirable reports had been drawn up by Sir Herbert Jekyll and Colonel Hellard for the Traffic Branch of the Board of Trade. But the Traffic Board had no funds and no executive powers for laying down any complete scheme. The consequence was that improvements were being made in a haphazard and piecemeal way. London was being encircled by a series of very excellent town-planning schemes, which when they had received the approval of the Local Government Board would no doubt be proceeded with. A large number of buildings would be erected, roads would be laid down which had no reference to any general scheme, and any new system of roads, if then practicable at all, could only be carried through at enormous expense. It was supremely important that there should be some authority with dominating power which would be able to lay down a scheme of roads out of London which would be followed for all main roads in the future. If a scheme were prepared by negotiations with the town-planning authorities, the great landowners, and the promoters of the town-planning schemes, the work could be carried through at a comparatively moderate cost. In the case of Liverpool and other towns landowners had been only too glad to assist by giving land for the purpose of these roads, which would develop their property in the neighbourhood of towns. Although he had laid special stress upon the practical necessity of these roads, he should like to say also that the Royal Institute of British Architects was not at all blind to the opportunities these roads would afford of increasing the aesthetic amenities of London, and he was permitted to say that if the Institute were allowed at any future time to give assistance and advice on that side of the question as well as the other, it would be entirely at the service of the authority appointed.

THE PRIME MINISTER: Your point is that in your opinion it is desirable there should be either the creation of a new or the recognition of some existing authority?

Sir ASTON WEBB: Yes.

THE PRIME MINISTER: By which I presume you mean some Department of the Government; not a local authority, or anything of that kind?

Sir ASTON WEBB: No, not a local authority; a dominating authority.

Mr. L. VIGERS, speaking for the Surveyors' Institution, and Mr. R. J. Thomas, on behalf of the Institution of Municipal and County Engineers, expressed similar views.

Mr. RAYMOND UNWIN, on behalf of the London Society, quoted the experience of Berlin as a useful example. There, owing to want of co-ordination, traffic became congested, and a public agitation sprang up which resulted in a new Act, under which a central town-planning authority was created last year with power to regulate all traffic matters except the State railways, and to co-ordinate the local town-planning schemes.

THE PRIME MINISTER: Who under the scheme proposed is to find the money?

Mr. RAYMOND UNWIN said he thought that one of the powers to be given to the proposed authority would be that of apportioning the costs of the work amongst the different authorities according to the benefit that would accrue; the owners, the local authorities, the Central Authority of London, the Road Board, these would all contribute. The urgent matter very often was not to construct the road immediately, but to get the road agreed upon and the route protected from being blocked by buildings. The construction could very often be deferred until the urgency of the need justified its being carried out. Heavy expenditure was not required immediately, but would be required in the future if the routes of the roads could not be laid down and protected from being blocked. The protection of the routes from being blocked could be carried out by an authority which was entitled to apportion the costs fairly, because such an authority alone could settle the matter in advance; this need not necessarily involve laying down money for construction for some considerable time.

A second deputation was then introduced to the Ministers representing 48 local authorities in the rural and suburban belt of London, as well as the Commons and Footpaths Preservation Society, the Co-partnership Tenants (Limited), the Greater London Advisory Town Planning Committee, and the Garden Cities and Town Planning Association.

Alderman W. THOMPSON, Chairman of the Greater London Advisory Town Planning Committee, speaking as the representative of a conference of most of the local authorities of Greater London, said that many of the local authorities had town-planning schemes, but they did not know who was going to make the arterial roads or whether they were going to be made, or whether their schemes would link up with them. Many of the town-planning schemes were being suspended on that account. Owing to lack of foresight in the past £18,000,000 had been paid by local authorities in the last ten years for street-widening. They wished to avoid that expenditure in the future.

## THE PRIME MINISTER'S REPLY.

Mr. ASQUITH, in reply, said : I am obliged to you for the opportunity you have given me of meeting you, with my right hon. friend and colleague, the President of the Local Government Board, and of hearing what the two deputations—both of them very representative bodies looking at the same problem from somewhat different points of view—have had to say in the way of advice to the Government for its solution. It is a very serious and in some respects, I think, a unique problem. We are dealing here with an area which is outside the jurisdiction of the London County Council, but which from the point of view of the traffic into and out of London is of ever-increasing importance and difficult of administration. There are two points of consideration which have to be borne in mind, and, of course, it is not very easy to reconcile one with the other. On the one hand we have—and I am very glad to say it—under the very beneficent legislation for which my right hon. friend is mainly responsible, a great and wholesome activity on the part of local authorities in developing schemes of town-planning. The primary object, of course, is, and must be, to a large extent circumscribed by the special interests and amenities of their own particular district. On the other hand we have a growing need, not in the interests of particular districts, but of the whole area, and of London which lies behind. We have the growing importance of making what you have called our "arterial" roads more worthy of their object, more suited to carry the growing volume of traffic, better in point of direction and of convenience, and more adapted to serve all the different localities whose traffic from time to time passes along them. These are very important and very desirable objects. As I have said, the difficulty is to reconcile them with one another. I quite feel the force of what has been said, both by the gentlemen who represent the architects and surveyors, who look at the matter from the aesthetic and technical side, and those who represent the local authorities. I quite agree that if this work of town planning is not to be arrested, or, what is equally important, if the money which is spent upon it is not afterwards to prove to be in some respects squandered and wasted, it is quite essential that we should have at the outset, before any of these schemes are carried out, these two things—foresight and co-ordination. In other words, the authorities with local enterprise who act primarily with the object of benefiting their constituents in embarking upon a town-planning scheme ought to know at the outset what is going to be the line and cost of these arterial roads which are to pass through their district, because unless these points are determined beforehand the best-laid town-planning scheme may perhaps be wrecked. That is perhaps too strong an expression, but it may be found to have involved an enormous waste of energy and expenditure.

That is the problem which you have placed before me. So far as the Government is concerned we are most anxious to give any help in our power towards its solution. It is full of difficulties. One of the most obvious which meets the eye even of the superficial observer is that there is a certain conflict of interest, by which I mean that a local authority which is bent upon getting its town-planning scheme in its own area has not the interest which the community at large has in seeing that the arterial or main road pursues exactly its proper course. I do not suppose they would like to avoid it altogether, but they would like to be saddled with not more than the minimum share of the cost of the road which passes through their district. It is a sort of inverted altruism which would prefer to have this great public advantage carried out as far as possible at the cost of one's neighbours. I have revolved the matter in my mind, and so has my right hon. friend, and we have also the advantage of the presence of Sir George Gibb. Without saying more with regard to some of the suggestions that have been thrown out as to the constitution of some permanent supervising authority—they will receive very careful and sympathetic consideration—I would propose to you for the moment that the best thing you can do in the situation in which you all find yourselves placed—I am speaking now more particularly of those who represent local authorities—is to go into conference with my right hon. friend the President of the Local Government Board, who is quite willing to lend his services. If you are willing to take him as your chairman and mediator in regard to the matter and to go into a conference under his chairmanship, put the whole thing on the table and see if you cannot hammer out by agreement, with such guidance and advice as he, with his large experience, can give you, a plan which will meet the two points of interest to which I have referred, I do not think it ought to pass the wit of experienced gentlemen such as you are, or that the conflict and collision of local interests ought to prevent the attainment of a scheme which will on the one hand secure and carry out all these various proposals for town planning, and, on the other, give to the inhabitants of London and to the wayfarers and traffic of the whole district the best scheme of arterial roads which at present, at any rate, can be devised. I venture to make that suggestion, and if it is your wish to put yourself into communication with my right hon. friend at the Local Government Board, he will arrange without any avoidable delay that such a conference shall be held and that all the various interests—and they are many—some of which appear at first sight to be in conflict—shall be heard in mutual conference. I cannot help thinking that in that way you might tide over the immediate problems that lie before you. On the larger question as to what authority—and I confess I am very much impressed with the view

that there ought to be some authority—as to what should be the character and position and the precise functions of any authority which might ultimately seem to be the best fitted for the purpose in regard to the general survey of schemes of this kind, that is a matter which I should like to reserve for further consideration. At the same time, I thank the gentlemen who have addressed me for the assistance they have rendered by the arguments and suggestions they have put forward. For the moment I can say no more than that, and I hope my proposal will meet with your assent.

Mr. BLOMFIELD, in thanking the Premier for his sympathetic response, asked if they might assume that at the proposed conference the deputation he had had the honour to introduce would be represented.—THE PRIME MINISTER: Yes.

#### The Extension of London: A Statesman's Advice eighty years ago.

With reference to the recent deputation to the Prime Minister to emphasise the urgent necessity for a plan for the future development of Greater London and for some co-ordinating authority, the following extract from the *Architectural Magazine* (p. 528), for the year 1836, may be of interest:—

"THE GENERAL ARCHITECTURAL IMPROVEMENT OF LONDON."—We are happy to see that this subject is attracting the attention of Parliament; Mr. Alderman Wood has obtained a select committee to consider the propriety of a large number of new thoroughfares for London. Sir Robert Peel hoped that an enlarged view would be taken of the subject, and that the House would not fall into the error it had committed with respect to railroads. Perhaps the best mode of proceeding with railroads would have been to appoint competent persons to survey the whole country, and to report upon the most eligible lines; but though it was now too late to take that course, something of the same kind might be done, with a view to the contemplated improvements of the metropolis; and before money of any kind were expended, some foresight ought to be used as to the future extension of London. If Commissioners could be found, in whom the public would have confidence, for a rational and comprehensive plan, it would be a subject of much congratulation (*Morning Chronicle*, 17 June 1836)."

Three-quarters of a century have shown the wisdom of the statesmanly advice of Sir Robert Peel. Mr. Asquith at the present day has before him, in the light of past experience, a clearer task, but there is need, great need, of an even greater vision.—W. R. DAVIDGE [A].

#### The Danger to St. Paul's: Views of Sir Thomas Jackson and Mr. Somers Clarke.

Sir Thomas G. Jackson, R.A., who formed one of the party of architects who visited St. Paul's Cathedral for the purpose of examining the signs of settlement and the work now being done on the fabric, has given his opinion on the situation in a letter to Sir Francis Fox, published in *The Times* of the 30th June. Sir Thomas says:—

I gathered that Sir Christopher Wren laid his foundations on a bed of firm clay some 6 feet or 7 feet thick, below

which is a bed of good gravel of about the same thickness. Below that is a layer of sand charged with water.

On such a foundation, undisturbed, I think one might safely put almost any building. Wet sand is remarkably firm so long as it is confined.

In this case, however, deep sewers have been made close to the building much deeper than Wren's foundations, which are only 4 feet 6 inches below the Crypt floor, and one warehouse at all events has a basement also well below the foundations. Probably most if not all of the buildings round the Churchyard are similarly provided with deep basements, though I am not aware of the fact.

These sewers and basements were formed in the sand stratum, and from reports made during the formation of the sewer it appears that it was constructed with great difficulty, as the wet sand flowed in and had to be pumped out. This operation lasted six months before the alarm was given which prevented the formation of an additional sewer.

This draught of water and running sand from the subsoil has no doubt been the cause of the settlement of the eight piers of the Dome on which the heaviest weight rests.

Although the proposed tramway near the east end has fortunately been abandoned, I think it probable that a drainage is still going on below the foundations. It is recorded that the sewer was formed with great difficulty, the bricks disappearing in the great rush of water and sand into the excavation. I do not know what condition the sewer is in now, but even if it is still water-tight there would naturally be a draught round it which would do mischief by drawing sand from below the foundations of the Cathedral.

Whether anything can be done to avert the progress of this loosening of the subsoil I cannot from what I know form any opinion. To underpin the piers of the Dome is of course impracticable, for one would only get into the same bed of running sand. I do not know whether it would be possible to inject cement into the soil round about the deep sewer, to which I conceive the mischief is due.

The fissures you showed me in the piers in the Crypt, the nave, and the radiating buttresses at the springing of the Dome drum are alarming. A mere cursory inspection should be enough to convince anyone that the matter can no longer be neglected.

What is now being done by you and Mr. Macartney is to consolidate the piers by injecting cement grout into all the cracks with the Greathead machine. I was surprised to see the very inferior character of the core of the piers in the Crypt, which consists of loose rubble of small stones laid in very inferior mortar quite soft and unfit to carry weight. To consolidate this by grouting as you are doing is obviously the first thing to be done, and to judge from what I saw when a stone had been removed from a part of the wall which had been grouted the desired result seems to have been attained. The grout seems to have travelled into every fissure and to have set like a rock.

Underpinning being out of the question, my opinion is that the only hope is to bind the construction so firmly together as to make it a homogeneous fabric which, if it settles further, may go down without rupture.

This, of course, involves considerations of the unequal load on the central part of the building and the ends of the arms of the Cross, which no doubt creates a difficulty, but I trust not an insuperable one.

The capital work you are now doing meets the first obvious necessity, but I wish something could be done to avert further movement in the subsoil if on examination it should be found still active.

Sir Thomas adds in a postscript:—

The vibration from the street traffic is felt very sensibly in the library. I cannot feel certain as to the possibility of its affecting the stability of the building, but if it has any effect at all on the mortar joints, that effect must be for the worse.

Mr. Somers Clarke in a letter to *The Times* of the 1st July says :—

Since I resigned the position of architect to the Dean and Chapter in 1907, I have from time to time visited the building, and more especially in June of this year. I am convinced that there have been movements in the walls of the structure since I had it in charge. The condition of the southern end of the south transept when I took charge was very alarming. It was just at the foot of this immense and heavy wall that the sewer was made many years ago from which volumes of sand and water were pumped. I fear that unless all along the south side some means be found to carry the footings right down to the London clay, the Cathedral will always stand in the greatest jeopardy.

Sir T. G. Jackson calls attention to the dangers that lurk in the future. By the kind permission of Sir Francis Cook, I have examined the basement of his large warehouse, which lies immediately south of the south transept. Fortunately his premises, entirely rebuilt not very many years since, do not go down as low as the footings of the Cathedral, but immediately to the west lies a row of smaller buildings which might at any time be reconstructed. Space is so valuable at this point that the owners would find themselves benefited in all respects by carrying down the foundations of the new premises to the London clay. This would be far below the present footings. All lateral support would be lost.

The south-west tower shows active signs of movement. Close to this part of the Cathedral deep foundations for adjacent warehouses have been made. I have seen some of them myself, the water moving through the gravel which overlies the London clay.

Sir T. G. Jackson refers to vibration felt in the library. This apartment lies immediately behind the south-west tower and is consequently near the place where the deep foundations before referred to were excavated. Certain openings visible in the vaulted ceiling of this room are bigger than they were a few years since. I cannot remember of old to have felt the floor of this room in vibration, although I have spent many hours in the library. Now it vibrates considerably and constantly with the weight of passing vehicles.

The expert committee now engaged in examining the fabric of the Cathedral and considering methods of strengthening the foundations consists of Mr. Horace Darwin, acting on behalf of Sir John Wolfe Barry; Mr. Mervyn Macartney and Mr. W. D. Caroe, architects; and Sir Francis Fox and Mr. R. C. H. Davison, engineers.

#### The Crystal Palace.

It is satisfactory to record in these pages the successful result of the Lord Mayor's effort to preserve for the nation for all time the Crystal Palace and its magnificent park of over two hundred acres. Congratulations are especially due to Lord Plymouth, who has at length been relieved of the heavy responsibility he took upon himself some two years ago when finding the £230,000 required to save the Palace from the then imminent danger of falling into the hands of the speculative builder. This great sum was provided on the understanding that a Mansion House Fund would be raised to buy the property back from him for the nation. The Fund started well, but subscriptions falling off when £140,000 was reached, the Lord Mayor appealed to *The Times* to open a special fund of its

own to secure the balance. *The Times* responded with such good effect that in less than fourteen days the whole of the £90,000 required to complete the purchase was subscribed, Lord Plymouth himself sending a cheque for £5,000. *The Times* is to be heartily congratulated upon its splendid achievement. In response to a letter from the Lord Mayor addressed to the President of the Institute, the Council voted the sum of twenty-five guineas to the fund.

#### Scottish National Historical Monuments.

On the initiative of the Glasgow Institute of Architects the following letter from the four Scottish Architectural Societies has been addressed to Lord Beauchamp, First Commissioner of Works :—

MY LORD,—The undersigned have had their attention drawn to the arrangements now being made by the Government for the supervision and preservation of the Ancient Buildings coming under the Board about to be constituted for the care of the National Historical Monuments.

From the answer to the question asked in the House of Commons by Mr. Hogge, M.P. (Edinburgh East), on the 29th ult., it appears that it is in your power as First Commissioner of Works to constitute, should you find it desirable, an independent Board to deal with our Scottish National Historical Monuments.

As representing the members of the Architectural profession practising in Scotland, we are strongly of opinion that it is not only advisable, but necessary, in order to ensure an efficient and satisfactory return for the activities and resources of the Department, as far as Scotland is concerned, that a separate Advisory Board be constituted in the same manner as already done for the National Historical Monuments Commission.

The reasons are :—

1. An Advisory Board with its headquarters in Scotland would be more intimately in touch with the professional, scientific, and artistic bodies interested in the ancient architectural monuments of Scotland, not only as the landmarks of our national history, but as the vehicles of study for the students of architecture and the allied arts.

2. The Board could more readily be composed of those best fitted to assess the artistic or historic value of the subjects brought under their notice, for it must be borne in mind that all students of architecture in Scotland are carefully trained in the history of ancient English architecture, but to the English architect ancient Scottish architecture is, generally speaking, of minor interest.

3. Our ancient Scottish architecture has, like the Scottish people, strong national characteristics, which are being more deeply studied and appreciated as the years advance, and the subscribers are satisfied that the inclusion of our national monuments under an English Board would be taken as a slight on our national sentiment and keenly resented.

We would suggest that if such a Board as we desire be constituted, it would be advisable to have the architectural profession adequately represented.

In conclusion, we shall be glad, should you desire to discuss the matter further, to send a deputation to wait upon you, and you may rest assured of our readiness to give any assistance that might facilitate the formation of such a Board.—We are, &c.

(Signed by the Presidents and Secretaries of the Edinburgh Architectural Association, the Glasgow Institute of Architects, the Aberdeen Society of Architects, and the Dundee Institute of Architects).

**The Royal Gold Medal 1913: Dinner to Mr. Blomfield.**

A Complimentary Dinner to Mr. Reginald Blomfield, A.R.A., President of the Royal Institute, was given by the Council at the Café Royal on Monday, 30th June, to signalise the distinction of which he was the recipient at the General Meeting of the 23rd June [JOURNAL, 28th June 1913]. Mr. E. Guy Dawber presided, and besides the members of Council and their personal guests there were present as special guests of the Council Mrs. and Miss Blomfield, Sir William Emerson, Sir George and Lady Frampton, Mr. A. W. Soames, M.P., and Miss Soames, and Sir Aston Webb.

Mr. Dawber gave the toast of the evening, "Our Guest," and at the conclusion of his speech presented to Mr. Blomfield the following Address beautifully illuminated on vellum:—

"We the undersigned members of the Council of the Royal Institute of British Architects for the Session 1912-13 beg to offer to our President, Mr. Reginald Blomfield, A.R.A., F.S.A., M.A. Oxon, Hon. Fellow of Exeter College, our sincere and hearty congratulations upon the distinction that has been conferred upon him by the award of the Royal Gold Medal for Architecture, presented by his Majesty the King, in recognition of his executed works as an architect and of his contributions to the literature of architecture.

"We desire at the same time to express our appreciation of the admirable qualities which he has displayed in his first year of office, and of the great services which he has rendered, both to the Institute and to the architectural profession."

The Address bore the signatures of all the members of the Council for the past Session.

The guests were entertained with music and recitations, the programme consisting of songs by Miss Bessie Mark, violin solos by Miss Audrey Richardson, and humorous recitations by Mr. Walter Churcher, the whole arranged and provided by Mr. Sydney Perks.

**Cricket : R.I.B.A. v. A.A.**

This match was contested under excellent conditions on Wednesday, 9th July, on the ground of the Architectural Association at Elstree. Both sides put a fairly representative team in the field, under the captaincy of their respective Presidents. Rain overnight had made the wicket slow, and Mr. Reginald Blomfield winning the toss decided to field. The game opened sensationally enough, for after Mr. Hubbard had displayed considerable originality as to the number of balls in an over, Mr. Lutyens was brilliantly taken at point by Mr. Blomfield with the total at 1. Mr. Doll joined Mr. Cheston, and, after three "lives," settled down to an invaluable innings of 56, the partnership adding 79 for the second wicket. Mr. Slater played sound all-round cricket for his 45. Mr. Wilson took up the attack and met with immediate success, his leg-breaks

accounting for 4 wickets at a cost of 6½ runs each. The innings concluded with a last-wicket stand of 34, the majority coming from the bat of Mr. Curtis Green. The R.I.B.A. were thus faced with the task of making 213 to win. Mr. Newton and Mr. Hadwen opened the Institute's innings to the bowling of Mr. Doll and Mr. Benson, the first wicket falling at 24. With the addition of 20 runs, Mr. Sutton was caught at extra cover, making way for Mr. Brocklesby. When the latter was joined by Mr. Blomfield, runs came freely, and it was not until 153 was reached that Mr. Lutyens succeeded in separating them. With the score standing at 180 for 6 an Institute victory seemed more than probable. However, Mr. Lutyens bowled so effectively that the last 4 wickets fell for 15 runs, and the A.A. won an excellent game by the narrow margin of 17 runs. The following is the score:—

## THE A.A.

Mr. E. J. T. Lutyens, c. Blomfield, b. Sutton...	1
Mr. J. A. Cheston, b. Brocklesby .....	20
Mr. M. H. C. Doll, c. Nicholls, b. Wass .....	56
Mr. N. S. Robinson, b. Wilson .....	4
Mr. J. A. Slater, b. Wass.....	45
Mr. H. C. Benson, c. Brocklesby, b. Wilson .....	4
Mr. T. F. W. Grant, lbw., b. Wilson .....	10
Mr. S. M. P. Sheppard, st. White, b. Wilson .....	0
Mr. D. H. Archer, b. Brocklesby .....	33
Mr. C. Claydon, not out .....	12
Mr. W. Curtis Green, b. Wass .....	22
Extras .....	5
Total.....	212

BOWLING.—Wass 3 for 54, Wilson 4 for 26, Brocklesby 2 for 62, Sutton 1 for 47, Hadwen 0 for 18.

## THE R.I.B.A.

Mr. W. G. Newton, c. Robinson, b. Benson .....	23
Mr. N. W. Hadwen, b. Benson .....	12
Mr. C. A. L. Sutton, c. Claydon, b. Benson.....	18
Mr. J. S. Brocklesby, b. Lutyens .....	84
Mr. F. H. Swindells, b. Lutyens .....	4
Mr. R. Blomfield, A.R.A., c. Robinson, b. Lutyens	22
Mr. F. J. Wass, c. Cheston, b. Doll .....	15
Mr. H. White, b. Lutyens .....	9
Mr. F. Nicholls, b. Lutyens .....	0
Mr. A. N. Wilson, c. and b. Lutyens.....	0
Mr. V. T. Hodgson, not out .....	4
Extras .....	9
Total.....	195

BOWLING.—Lutyens 6 for 44, Benson 3 for 47, Doll 1 for 74, Sheppard 0 for 9.

HOWARD D. ARCHER,  
Hon. Sec. A.A. C.C.

**CORRESPONDENCE.****The University of Sheffield : Department of Architecture : Tour in France.**

*The University, Sheffield : 6th July 1913.*

SIR,—Will you kindly grant me space in your correspondence columns in which to announce an alteration in the arrangements for the above tour from Paris to Autun, Blois, Bourges, Chartres, &c. [p. 531].

The tour will start on 11th August, instead of 4th August as previously announced.

As there has been some misunderstanding on this point, I should also like it to be made known that, as in the case of all other courses at this University, this vacation course is open to ladies, and, as a matter of fact, two or three ladies have already decided to join the tour.

I shall be glad to supply further particulars of the tour to any desiring them.—Yours truly,

W. S. PURCHON [A.]

## OBITUARY.

### James Mitchell Whitelaw.

In the passing away of James M. Whitelaw the architectural profession will undoubtedly lose one of the strongest of its young men. So seldom is it given for one to meet such enthusiasm for the profession and such confidence in the future, that the loss will be felt not only by those with whom he came into personal contact, but by the architectural profession ten years hence. A young man of strong personality, with a self-confidence and faith equal to that which it is said "would move even mountains," he exerted great influence over his fellow students, not only in architecture, but also amongst some of the most successful in painting and sculpture, almost to the point of worship.

Such little success as he may have acquired in his short career was merely, Whitelaw believed, leading up to greater things. He was thoroughly convinced that the best was yet to be, and that far greater buildings than the Parthenon and the Gothic Cathedrals would yet be erected.

In working out any problem, his system was to gather together all the most up-to-date information he could collect on the subject. In his station design for the Soane Medallion, he went into the most exhaustive study of railway engines, railway construction, etc., so that he might embody the same expression into his conception, every portion of which was based on a multiple of the railway lines: the scale of the wheels was taken on to the ceiling, soffits of arches, and ornamentation. Everywhere symbolism, geometry, and proportion were employed in order to get the proper expression of a station. And so with his design for a Concert Hall, for which he gained the R.A. £20 prize; in the grouping of the sculpture he placed the Northern Bards to the North, and employed the arch and the round to give movement and rhythm.

He studied the architecture of all countries, including that of India, Japan, and China, not from any archaeological standpoint, but purely for its character and expression.

Before his death his hope and intention was to gain the R.A. Gold Medal, and so travel with both Scholarships. His idea was to make a tour of the world, starting across Europe, through India, Japan, and returning by America. However, as he

was wont to quote himself, "the best-laid schemes of mice and men gang aft agley."

It is especially sad when a young man is cut off, as he has not had his chance. An older man has done his work and had his say, but we never know what a young man may accomplish.

THOS. S. TAIT.

Mr. Whitelaw, who was drowned while bathing at Bournemouth on the 5th July, started his career in the office of Mr. Alexander Skirving, of Glasgow, and after winning the Alexander Thompson travelling studentship, with which he went to Italy, he entered the office of Dr. J. J. Burnet, in London. In 1909 he entered the Royal Academy Schools, and in 1910 won the R.I.B.A. Measured Drawings Medal with a remarkable set of drawings of the Wellington Memorial in St. Paul's, after which he won the £15 and then the £20 yearly prizes at the Academy Schools. In the present year he was awarded the Soane Medallion and £100 for his design for a terminal railway station. He was associated with Mr. Tait in competitive designs for the Marylebone Municipal Buildings, and also in the competition for the completion of the Regent's Quadrant organised by *The Builder*, in which they were placed third.

**William Chasen Ralph**, of Wigan, *Fellow*, elected 1903, died on the 10th July at the age of sixty-four. Mr. Ralph was a pupil of the late Edward Graham Paley, whose office he entered in 1864, and he remained with him until 1875, when he went as assistant to Mr. John Douglas, of Chester. He left Mr. Douglas in 1890, and in 1892 became partner in the firm of Heaton & Ralph, of Wigan. On the death of Mr. Heaton, the present firm, W. Chasen Ralph & Son, was established. Mr. E. Wyatt Ralph [*Licentiate*], the son, being taken into partnership. Mr. Ralph's firm was responsible for the design and erection of many important church and school buildings in Wigan and neighbourhood, of clubs, municipal buildings, hotels, and various mansions and smaller residential buildings. He was one of the founders of the Holmes Lodge of Freemasonry.

**The late John Oldrid Scott.**—Anent the obituary notice in the JOURNAL, p. 614, reference is made to works where Mr. Oldrid Scott was associated with his father. May I record a little note concerning his connection with Chester Cathedral? One day when he was in my office I noticed him inspecting some photographs loosely tacked over the fireplace, and one he pointed out as "an old friend." It shewed the groined arched under the north wall of the Central Tower, designed to support the organ, the drawings having been prepared by him. His memory was suddenly directed to past years when he was in his father's office, and the quiet—almost shy—references he made to that time shewed the depth of his architectural faith even in the earliest years.—G. A. HUMPHREYS [F.]

## THE EXAMINATIONS.

### Preliminary.

The Preliminary Examination, qualifying for registration as Probationer R.I.B.A., was held in London and the undermentioned provincial cities on the 10th and 11th June. Of the 168 candidates admitted, 48 were exempted from sitting, and the remaining 120 were examined, with the following results :—

Centre	Number Examined	Passed	Relegated
London . . .	62	38	24
Belfast . . .	2	2	0
Bristol . . .	10	9	1
Glasgow . . .	3	2	1
Leeds . . .	10	7	3
Liverpool . . .	8	5	3
Manchester . . .	19	14	5
Newcastle . . .	6	6	0
	—	—	—
	120	83	37

The 131 passed and exempted candidates, who have been registered as Probationers, are as follows :—

- ALLAN : William ; 19 Charing Cross Road, W.  
 ANDREWS : Cyril Douglas ; 86 Derby Road, Ponder's End, N.  
 ASHBURNER : Edward Heathcott ; 13 Braddell Terrace, Ulverston, Lancs.  
 BARROWCLIFF : Arnold Montague ; 6 Burton Street, Loughborough.  
 BATTLE : Arthur Newsum ; White Hall, Potter Hanworth, near Lincoln.  
 BEER : Archibald Frank ; 34 Clarendon Street, Dover.  
 BEGBIE : Arthur Cyril ; 17 Ward Street, Crackenedge, Dewsbury, Yorks.  
 BLACKWELL : John Humphrey ; "Westbury," Kettering.  
 BLAMPIED : Roy Charles ; 72 Humber Road, Westcombe Park, Blackheath.  
 BRIAN : Arthur Gerald ; Holmbury, Berkhamsted, Herts.  
 BROWN : Harold Christian Joughin ; "Seamount," Ramsey, Isle of Man.  
 BROWNE : Thomas Lindsay ; 71 Fern Avenue, Jesmond, Newcastle.  
 BRUNDEL : Henry Carleton Bulman ; 756 Fulham Road, Fulham, S.W.  
 BUSHELL : Thomas Oswald ; "Leahurst," Glazebury, Manchester.  
 CAIN : Robert Hunter ; 15 West View, Douglas, Isle of Man.  
 CALEY : Walter Herbert ; Cranwell House, Rusthall, Tunbridge Wells.  
 CAPON : George ; 41 Drakefell Road, New Cross, S.E.  
 CAVE : Thomas John Farley ; c/o J. N. Johnston, 21 Princes Street, Yeovil.  
 CLARK : Edwin Ivanhoe ; Shillingford, Bampton, Devon.  
 CLIFTON : Edward Noel ; 7 East India Avenue, Leadenhall Street, E.C.  
 CONCANEN : Tholen Alfred Hugh ; 6A Churchmead Road, Willesden Green, N.W.  
 CROOK : Waldo Neville Harris ; 6 Davenant Road, Oxford.  
 DARVILL : Douglas Harry ; "Bournefield," Slough, Bucks.  
 DAVIS : Guy Lidster ; c/o Messrs. Shayler and Ridge, Bank Chambers, Oswestry.  
 DOE : Edgar Herbert ; 63 Florence Road, Maidstone.  
 DOW : William Eric ; 8 West Albert Road, Kirkcaldy.  
 DUNCAN : Wilfred Thomas Eardley ; Convalescent Home, Queen's Park, Brighton.
- EDMONDSON : Thomas ; Brunshaw House, Burnley.  
 FOSTER : William Richardson ; "Tynchholme," Campbell Road, Gravesend.  
 FRISKIN : William Wallace ; 182 Kensington Park Road, Notting Hill, W.  
 GOUGH : Roland Ivor ; 163 Broad Street, Birmingham.  
 GREENSILL : George Edward ; Allport Road, Cannock, Staffs.  
 GREGORY : Wallace James ; 41 Craven Park Road, Harlesden, N.W.  
 HAILE : Wilfred Lethaby ; 28 Chesterfield Road, St. Andrew's Park, Bristol.  
 HALL : Aubrey Frederick ; 20 Britannia Street, Coventry.  
 HALL : Bertram James Leslie ; 57 Alexandra Road, Windsor, Berks.  
 HALL : Herbert James ; "Rodwell," 62 Cornerswell Road, Penarth.  
 HALL : Richard Leslie Carby ; Church House, Roundhay, Leeds.  
 HARDY : John Rupert ; School House, Merthyr Vale, Glamorgan.  
 HARROP : Stanley Borwell Noble ; 6 Hartington Road, Millhouses, Sheffield.  
 HARVEY : John Lyne ; 2 Argam Villas, Devonport.  
 HAWKINS : Archibald ; 2 Liverpool Place, High Street, Cheltenham.  
 HEALEY : Gilbert John ; Moneton, near Spalding.  
 HELBING : Vernon Adolphus Job ; 184 Altmore Avenue, East Ham, Essex.  
 HODGES : Reginald George ; "Dulce Domum," Mitcham.  
 HOLDSWORTH : Tom ; "Thorndyke," Manchester Road, Burnley, Lancs.  
 HONER : Alfred John ; 60 Machon Bank, Nether Edge, Sheffield.  
 HOOD : John Thornton ; 3 Bellefield Avenue, Dundee.  
 HOPCRAFT : John Edwin ; "Carisbrook," Limpfield, Surrey.  
 HOWARD : James Leslie ; Turf Lea Fold, Marple, near Stockport.  
 HUDSON : Philip Sidney ; The Royal Hospital, Chelsea, S.W.  
 HURD : Paul Vandervesperyn ; "Hill Crest," Blackhill Co., Durham.  
 JEFFERY : Sidney Herbert ; 31 Hardinge Road, Ashford, Kent.  
 JOHNSTON : William Court ; 40 Aglionby Street, Carlisle.  
 JONES : Owen Campbell ; 9 Dowgate Hill, Cannon Street, E.C.  
 KEESLEY : Walter Monckton ; 3 Stadwin Street, Cheyne Walk, Chelsea, S.W.  
 KELLY : Michael Richard ; "Sunnyside," Marlboro' Park, Belfast.  
 KING : George Edward ; 78 Melton Road, West Bridgford, Nottingham.  
 LANKFORD : Edwin Warry ; 49 Forgate, Sheffield.  
 LAUDER : Felix James ; 94 Pixmore Way, Letchworth, Herts.  
 LEWIS : Samuel Hamilton ; Bath House, London Road, Twickenham, Middlesex.  
 LOBBAN : Arthur Victor ; Claremont, Ayr, N.B.  
 LOVELL : Leslie Graham ; Aberfoyle, Chesham Place, Bowdon, Cheshire.  
 LYNE : Edgar, Jun. ; Oakdale, 20 Christchurch Road, Streatham Hill, S.W.  
 McCALLUM : Malcolm Sinclair ; Ivy Cottage, Brodick, Isle of Arran.  
 MCALERY : John, Jun. ; 7 Blenheim Terrace, Cromwell Road, Belfast.  
 McAULAY : John Alexander ; 29 Cambridge Road, Great Crosby, Liverpool.  
 McCARTNEY : Harold Spencer ; 110 Hulton Street, Moss Side, Manchester.  
 MCREA : William ; 2 Rosebery Terrace, Kirkcaldy.  
 McGARRIGLE : Thomas ; c/o Dewar, Mitchell Street, Leven, Fife.

- METCALFE : Harry ; 173 Shear Brow, Blackburn.
- MILNER : John Sowerby ; The Vicarage, Helston, Cornwall.
- MOON : Cyril Edward ; St. Chrysostom's Vicarage, Handsworth, Birmingham.
- MOORE : John Drummond Macpherson ; Bayswater, Mackenzie Street, Lindfield.
- MORGAN : Taliesin Merfyn ; "Telynfa," Aberdare, Glamorgan.
- NEELY : Richard Ross ; 2 Cromwell Road, Belfast.
- NORBURN : George Bertram Edward ; 16 Albert Grove, Southsea, Hants.
- PICKARD : Leslie Reginald ; Cursham Street, Sutton-in-Ashfield, Notts.
- PILDITCH : Philip Harold ; Bartropps, Weybridge, Surrey.
- POTTS : Robert William ; 21 Upper Gray Street, Edinburgh.
- QUICK : Norman Dennis ; 51 Bryn Road, Swansea.
- REILY : Eric ; 68 Forest Road, Southport.
- RICHARDSON : Harley Birkbeck ; 29 Greenbank Crescent, Darlington.
- RICHARDSON : Harry A. ; Elsinore, Heaton, Bolton.
- RYDER : Arthur Frederick ; 3 Elvey Street, Pinderfields, Wakefield.
- SADLER : James ; 4 Craigie Terrace, Ferry Road, Dundee.
- SANDERS : Thomas Andrew ; 5 Gloucester Road, Birkdale, Southport, Lancs.
- SARGENT : Reginald Sydney ; 98 Victoria Avenue, Ore, Hastings.
- SCHEIN : Henry ; 92 Downs Park Road, Clapton, N.E.
- SCOTT : Noël Edmund ; c/o Edwin Bradbury, Esq., College Park Chambers, Nassau Street, Dublin.
- SHIBER : George Saba ; 28 Prince's Square, Queen's Road, W.
- SMITH : Vivian Cuthbert Edwin ; "Waratah," Victoria Road North, Southsea.
- SOISSONS : Louis Emmanuel Jean Guy de Savoie Carignan de ; 25 Cheyne Row, Chelsea, and 12 rue de Seine, Paris.
- SPENCE : William Needham ; "Lithgow," Oakley Road, Ranelagh, Co. Dublin.
- STANSFIELD : John Arthur ; 22 Swinless Street, Burnley.
- STEWART : Adam Knowles ; Baymount, Ward Avenue, Bangor, Co. Down.
- STOTT : Christopher ; 23 Queen's Avenue, Old Trafford, Manchester.
- STREADWICK : Vernon James ; 47 Trent Road, Brixton Hill, S.W.
- STREETER : Frederick Robert ; "Redholme," Tyrone Road, Thorpe Bay, Essex.
- SUTCLIFFE : Thomas Wilfrid ; 22 Edmund Street, Rochdale.
- SYKES : Alfred Howard ; 90 Birkby Hall Road, Huddersfield.
- SYKES : Douglas Harry ; 86 Wilton Road, Sparkhill, Birmingham.
- SYKES : Mark Neville ; 69 Cardigan Road, Leeds.
- TASKER : Edward Clough ; 46 Ramhill Road, Scarborough.
- THOMAS : Dan Wynne ; 49 Cowbridge Road, Carton, Cardiff.
- TIFFIN : Samuel William ; 54 Huddleston Road, Tufnell Park, N.
- TROLLET : Walter George Francis ; "Casetta," 114 Conway Road, Southgate, N.
- TURNBULL : Bernard William ; 8 Camden Road, N.W.
- TURNER : Frederick Wentworth ; 26 Wendover Road, Aylesbury, Bucks.
- VAREY : Frederick ; West Hill House, Chapel Allerton, Leeds.
- VASSILIKOS : George P. ; 83 Warwick Street, Westminster, S.W.
- WALKER : Eric Norman Livesay ; c/o J. Livesay, Esq., 4 Whitehall Court, S.W.
- WALKER : Irwin ; 10 Myddleton Street, Carlisle.
- WHARF : Henry Francis ; 106 Coltman Street, Hessle Road, Hull.
- WHITBURN : Algernon Stuart ; "Elm Croft," Claremont Avenue, Woking.
- WHITE : Cyril Warren ; Ivor House, Durdham Park, Bristol.
- WHITE : Raymond Charles ; 6 Bierton Hill, Aylesbury, Bucks.
- WIGGLESWORTH : Wilfred Pierce ; Dirlton, Battlefield Road, St. Albans, Herts.
- WILLEY : Frank Cyril ; "Osmington House," Elderfield Road, Clapton, N.E.
- WILLIAMS : Rees John ; Rum Puncheon Hotel, Swansea.
- WILSON : Joseph ; 6 Jedburgh Gardens, N. Kelvinside, Glasgow.
- WILTSHIRE : Douglas Cecil ; "Hazlemere," Curzon Road, Bournemouth, E.
- WINES : Ernest Wall ; 121 Newgate Street, Worksop.
- WINSER : Basil Charles ; Oak Lea, 27 Gloucester Road, Kingston-upon-Thames.
- WOOD : Arthur George ; Warrington Place, Paddock Wood, Kent.
- WOOD : Henry ; "The Chestnuts," 77 Lordship Road, Stoke Newington, N.
- WOOD : James ; c/o Brown, 52 Elm Row, Edinburgh.
- WOOD : Ralph ; Abbey Hulton, Milton, Stoke-on-Trent.
- WOOD : William Walter ; 145 Front Street, Arnold, Notts.
- WOODLEY : Stanley William ; "Woodview," 121 Erskine Hill, Hendon, N.W.
- YOUNG : George ; 13 Beaumont Terrace, Jarrow-on-Tyne.

#### Intermediate.

The Intermediate Examination, qualifying for registration as Student R.I.B.A., was held in London and the provincial cities mentioned below from the 10th to the 17th June. Ninety-nine candidates were examined, with the following results :—

Centre	Number Examined	Passed	Relegated
London	46	26	20
Belfast	2	2	0
Bristol	9	6	3
Glasgow	4	2	2
Leeds	11	11	0
Liverpool	7	5	2
Manchester	15	7	8
Newcastle	5	2	3
	99	61	38

The passed candidates are as follows, the names being given in order of merit :—

- [P. = Probationer.]
- STEPHENS : Herbert Stanley [P. 1912] ; Hampden Club, St. Pancras, N.W.
- LAWSEN : John Scott [P. 1912] ; 1 Castle Blair Park, Dunfermline, Fife.
- SHATTOCK : Lawrence Henry [P. 1912] ; 4 Crescent Road, Wimbledon, Surrey.
- FYFE : James Simpson [P. 1912] ; 147 Hunter House Road, Ecclesall, Sheffield.
- DOUGILL : Wesley [P. 1912] ; 42 Victor Road, Manningham, Bradford, Yorks.
- TAYLOR : Martin Baitley [P. 1911] ; 37 Wheelwright Road, Erdington, Birmingham.
- FORD : Lawton Stephen [P. 1912] ; "Heatherland," Fairmile, Cobham, Surrey.
- SAUNDERS : Bernard Robertson [P. 1910] ; 13 Vernon Road, Edgbaston, Birmingham.

- BLACKFORD** : Joseph [P. 1911]; Oakfield, Chaddesley, near Kidderminster.
- PRATT** : Neville Herbert [P. 1910]; Turret House, Meadow Lane, Nottingham.
- HOWELL** : John Allnutt [P. 1905]; 3, Southmoor Road, Oxford.
- HALL** : Robert Bearly [P. 1906]; Y.M.C.A. Hostel, Cardiff.
- DICKINSON** : John [P. 1910]; Westholme, Bolton-on-Deerne, near Rotherham.
- CROSSLEY** : George [P. 1911]; 117 Upper Woodlands Road, Bradford.
- FRATER** : Robert [P. 1911]; 274 Ormeau Road, Belfast.
- WHITBREAD** : Leslie George [P. 1910]; c/o Sydney Moss, Esq., 4 St. Ann's Square, Manchester.
- HILL** : George Noel; 4 Buckingham Road, Wallasey, Cheshire.
- BOWES** : Roy [P. 1911]; 293 Oldham Road, Failsworth.
- FOOTE** : Alexander Allen [P. 1910]; 3 Parliament Square, Edinburgh.
- CAWKWELL** : Robert [P. 1909]; 1 Standon Road, Wincanton, Sheffield.
- CALLENDER** : George Wilfred [P. 1912]; c/o Bank of New Zealand, 1 Queen Victoria Street, S.W.
- ROSE** : George Alfred [P. 1911]; 17 Stanton Road, Wimbledon, S.W.
- SPENCE** : Andrew Tebbutt [P. 1912]; 65 Union Road, Clapham, S.W.
- VENN** : George Oswald [P. 1911]; Featherfield, Latchford, Warrington.
- PALMER** : Thomas Roger Liddesdale [P. 1910]; The Vicarage, Roundhay, Leeds.
- GRELLIER** : Cecil [P. 1909]; St. Martin's Croft, Epsom.
- BARLEY** : Francis Alfred [P. 1911]; 10 Canewdon Road, Westcliff-on-Sea, Essex.
- KIRBY** : Rufus [P. 1910]; "Dunnottar," 88 Turney Road, Dulwich, S.E.
- BOWES** : Trevor Straker [P. 1910]; 72 Claude Road, Cardiff.
- JOHNSON** : Reginald Sidney [P. 1909]; Stafford Lodge, Stafford Road, Croydon.
- BROWN** : Walter James [P. 1910]; 5 Marlborough Terrace, Park Street, Taunton, Somerset.
- CORNISH** : Charles Edwin [P. 1910]; Yeo Vale Cottage, Pilton Bridge, Barnstaple.
- GEORGE** : Thomas [P. 1912]; 1 Okus Road, Swindon, Wilts.
- LAVENDER** : Ernest Clifford [P. 1908]; "Highenden," Belvidere Road, Walsall.
- AINSWORTH** : Arthur [P. 1910]; 365 Oldham Road, Newton Heath, Manchester.
- ASLIN** : Charles Herbert [P. 1911]; 73 Lennox Road, Hillsboro', Sheffield.
- BOOKER** : George Arthur [P. 1909]; 26, Lennox Road, Hillsboro', Sheffield.
- CHADWICK** : Charles Bernard [P. 1908]; Myrtle Bank, West Park Street, Dewsbury.
- CHISHOLM** : Harry Bertram [P. 1907]; 15 Old Quebec Street, Marble Arch, W.
- CLAYTON** : Charles Lawrence [P. 1909]; 10 Prince Albert Street, Brighton, Sussex.
- COSSEY** : George Alfred [P. 1908]; 90 Laburnum Grove, Portsmouth.
- DYSON** : Ernest Vincent [P. 1912]; 4 Chapel Lane, Headingley, Leeds.
- FARADAY** : Sidney, 17 Caithness Drive, Liscard, Cheshire.
- FAUSSET** : Stuart Simon [P. 1909]; 16 Chichester Avenue, Antrim Road, Belfast.
- FILKINS** : Edwin William [P. 1902]; The Bungalow, Clapham, Gravesend, Kent.
- HAMILTON** : Thomas Crissey [P. 1908]; 10 Leslie Crescent, Gosforth, Newcastle-upon-Tyne.
- HASELDINE** : Cyril Francis William [P. 1910]; 8 St. Peter's Church Walk, Nottingham.
- HOLROYD** : Frank [P. 1909]; 2 Oakwood Avenue, Roundhay, Leeds.
- JACKSON** : Ralph [P. 1906]; 38 Cheriton Square, Balham, S.W.
- LISTER** : Harold Alfred [P. 1911]; 8 Wyle Cop, Shrewsbury.
- MARTIN** : William Herbert [P. 1907]; 34 Waldegrave Road, Crystal Palace, S.E.
- MEDLEY** : Clifford [P. 1905]; Lea Mount, Keighley, Yorks.
- MOSCROP** : William Noel Jobson [P. 1909]; Ashcroft, Darlington.
- PALMER** : Arthur James [P. 1911]; 1 Hurle Crescent, Clifton, Bristol.
- PENDEREL-BRODHURST** : Bernard Richard [P. 1910]; Churchdale House, Harvards Road, Gunnersbury, W.
- PENNINGTON** : William Fulton [P. 1910]; "Stoncdeene," Kendal.
- RICHARDSON** : Herbert Clifford [P. 1910]; 92 Cannon Hill Road, Birmingham.
- SOWERBY** : Frank Douglas [P. 1905]; 43 Upper Park Road, Belsize Park, N.
- SUTCLIFFE** : Frederick [P. 1908]; Glenetter, 25 Kenilworth Road, Rathgar, Co. Dublin.
- TOMLINSON** : Lawrence [P. 1909]; 10 Mount Preston, Leeds.
- WALKER** : Harold Frederick [P. 1909]; 13 New Street, Dorset Square, N.W.
- The number of failures in each subject of the Intermediate Examination was as follows:—
- |   |    |
|---|----|
| A. Principal Styles and General History of Architecture | 22 |
| B. 1. Simple Applied Construction                       | 29 |
| B. 2. Theoretical Construction                          | 23 |
| C. I. Historical Architecture:—                         |    |
| (a) Greek and Roman                                     | 4  |
| (b) Byzantine and Romanesque                            | 0  |
| (c) French and English Gothic                           | 3  |
| (d) Italian, French, and English Renaissance            | 3  |
| C. 2. Mathematics and Mechanics                         | 0  |
| C. 3. Design  | 18 |
- Exemptions from the Intermediate.**
- The following Probationers possessing the certificates required under the regulations were exempted from the Intermediate Examination and have been registered as Students, viz.:—
- ALLAN** : William [P. 1913]; 19 Charing Cross Road, W. [First-class Certificate, Liverpool University.]
- BARROWCLIFF** : Arnold Montague, B.A. Lond. [P. 1913]; 6 Burton Street, Loughborough [First-class Certificate, University College, London.]
- FRISKIN** : William Wallace [P. 1913]; 182 Kensington Park Road, Notting Hill, W. [Senior Certificate, Glasgow School of Architecture.]
- HITCH** : John Oliver Brook [P. 1911]; 60 Harleyford Road, Vauxhall, S.W. [Four Years' Course, Architectural Association.]
- McCULLUM** : Malcolm Sinclair [P. 1913]; Ivy Cottage, Brodick, Isle of Arran. [Senior Certificate, Glasgow School of Architecture.]
- MAXWELL** : Arthur Edwin [P. 1907]; 3 Margaretta Terrace, Oakley Street, Chelsea, S.W. [Four years' Course, Architectural Association.]
- PATERSON** : William [P. 1908]; 3 Hope Park Terrace, Edinburgh. [Diploma, Edinburgh and Heriot Watt Colleges of Art.]
- SOISSONS** : Louis Emmanuel Jean Guy de Savoie Carignan de; Tite Prizeman 1912 [P. 1913]; 25 Cheyne Row, Chelsea, and 12 rue de Seine, Paris. [Ecole des Beaux-Arts, Paris.]

- WHITE**: Theodore Francis Hansford [P. 1908]; 14a Cavendish Place, Cavendish Square, W. [Four Years' Course, Architectural Association.]  
**WOOD**: James [P. 1913]; c/o, Brown, 52 Elm Row, Edinburgh. [Diploma, Edinburgh College of Art.]

#### The Final and Special.

The Final and Special Examinations, qualifying for candidature as Associate R.I.B.A., were held in London from the 19th to the 27th June. Of the 96 candidates examined, 33 passed, and 63 were relegated to their studies. The passed candidates are as follows:—

[S.=Student.]

- ADAMS**: Edward [S. 1910]; Carfax Chambers, Oxford.  
**BUDDEN**: Lionel Bailey [*Special*]; "Strathyre," Heswall, Cheshire.  
**CROWE**: Joseph John [*Special*]; 35 Harlow Moor Drive, Harrogate.  
**ELLIS**: Thomas Gordon [S. 1910]; 8 St. Stephen's Crescent, Bayswater, W.  
**FRASER**: Henry Hubert [S. 1907]; 7 Upper Montague Street, W.  
**GODFREY**: Henry Victor [S. 1908]; 26 Ingersoll Road, Shepherd's Bush, W.  
**GRIFFIN**: Douglas Horley [S. 1911]; 7 Esplanade, Waterloo, Liverpool.  
**GRISSELL**: Francis [S. 1907]; 7 Adam Street, Adelphi.  
**HAMMOND**: Frederick Millett [*Special*]; 108 Arncliffe Terrace, Begram's Lane, Bradford.  
**HANDS**: Joseph Garnet [S. 1911]; 12a Johnson Mansions, Queen's Club Gardens, West Kensington, W.  
**HEBBLETHWAITE**: Bernard Robinson [S. 1910]; 29 Hayne Road, Beckenham.  
**HENDRY**: Harry Duncan [S. 1909]; 102 Strathyre Avenue, Norbury, S.W.  
**HILL**: Joseph [S. 1909]; 23 Parliament Hill, Hampstead, N.W.  
**KAY**: George Alexander [S. 1907]; 16 Cavendish Road, Southsea, Hants.  
**LAWSON**: John Boyd [S. 1910]; 98 Esmond Road, Bedford Park, W.  
**LINTON**: Leonard [S. 1908]; 93 High Street, Stockton-on-Tees.  
**LORNE**: Francis [S. 1911]; "Dunollie House," Monkman's Drive, Woodford Green.  
**MACKENZIE**: Gilbert Marshall [N. 1912]; 1 Victoria Street, S.W.  
**MARCH**: John Ewart [S. 1911]; Saleham, Clarence Road, Clapham Park, S.W.  
**MAYHEW**: Alfred Ernest [S. 1910]; 20 Gladsmuir Road, Whitehall Park, Highgate, N.  
**NIMMO**: William Wilson [S. 1908]; 23 Parliament Hill, Hampstead, N.W.  
**PEERLESS**: Herbert Read [S. 1910]; 37 Redington Road, Hampstead, N.W.  
**PHILLIPS**: Aubrey Wyndham [S. 1912]; 67 Gwydr Crescent, Swansea.  
**PONDER**: Claud Vincent [S. 1905]; 42 Craven Street, Strand, W.C.  
**ROGERS**: John Charles [S. 1912]; 1 Cumberland Terrace, Lloyd Square, W.C.  
**RUSHWORTH**: Tom Sadler [S. 1905]; "The Farmhouse," Sheering, Harlow, Essex.  
**SPENCER**: Thomas [S. 1907]; "Hawkhurst," 25 Fitzgerald Avenue, East Sheen, S.W.  
**STURGEON**: Robert Victor [S. 1909]; 21 Range Road, Whalley Range, Manchester.  
**TAIT**: Thomas Smith [*Special*]; 26 Holyoake Walk, Ealing.  
**VOELKEL**: William [S. 1909]; 29 Hazelwood Avenue, Newcastle-upon-Tyne.  
**WALKER**: Richard [S. 1910]; 10 Campden House Road, Campden Hill, W.

- WILKS**: John [S. 1909]; 47 Mowbray Road, South Shields.  
**WOOD**: Herbert McGregor [S. 1908]; 5 Hornsey Lane Gardens, Highgate, N.

The number of failures in each subject of the Final Examination was as follows:—

A. Design . . . . .	58
B. Construction—	
(1) Foundations, Walls, &c. . . . .	35
(2) Iron and Steel . . . . .	30
C. Hygiene . . . . .	34
D. Properties and Uses of Building Materials . . . . .	12
E. The Ordinary Practice of Architecture . . . . .	27
F. Thesis . . . . .	22

#### Colonial Examination.

At the Intermediate Examination held in Sydney last March the following candidate passed and has been registered as Student, viz.:—

**MOORE**: John Drummond Macpherson [P. 1912]; "Bayswater," Mackenzie Street, Lindfield, N.S.W.

#### The Final : Testimonies of Study approved.

The Board of Architectural Education announce that the designs submitted by the under-mentioned students who are qualifying for the Final Examination have been approved:—

*Subject VIII.—DESIGN FOR A CARRIAGE ENTRANCE.*

P. D. Bennett.

*Subject IX.—(a) DESIGN FOR A MONUMENT CONTAINING ONE OR MORE FOUNTAINS.*

R. Braine.	R. S. Wallace.
W. W. Locke.	J. S. Hodges.
A. S. Burnett.	J. E. Lutyens.
F. Williamson.	B. A. Miller.
A. F. Kaltenbach.	E. C. Davies.
G. E. Charlewood.	R. H. Philip.
H. J. Tebbutt.	A. F. Hooper.
H. Dicksee.	J. Macgregor.
F. A. Addey.	J. C. Fowell.
F. Jenkins.	F. O. Lawrence.
R. S. Dixon.	G. Davidson.

#### (b) DESIGN FOR A BANK.

H. L. Charles.	J. J. Nathanielz.
W. T. S. Foster.	C. H. Wright.
W. R. Davison.	H. T. Cooksey.
E. Fincham.	C. H. Woodhouse.
J. E. Marchinton.	C. Ripley.
H. E. Crossland.	J. O. Thompson.
E. R. Frankland-Bell.	T. T. Jenkins.
I. Omar.	B. Newbould.
J. O. Cheadle.	E. R. F. Cole.
E. A. L. Martyn.	A. Thorpe.
H. F. Chandler.	O. Newbold.
R. Lone.	C. H. James.
S. G. Soper.	A. Silcock.
G. P. Stainsby.	V. Dyson.
H. Bagenal.	L. Foster.
W. G. Knight.	R. A. Barber.
J. W. Bull.	A. J. Sparrow.
G. Bennett.	H. Andrew.
A. Nisbet.	J. K. Currie.

**Alternative Problems in Design** (JOURNAL, 28th June, p. 615).

*Errata*.—Subject XI. (b): for Country Club read County Club.—Subject XII. (b): A Golf Club House: 2nd line of particulars, for Clubrooms read Club room.

